### GenCore version 5.1.6 Copyright (c) 1993 - 2006 Compugen Ltd.

OM protein - protein search, using sw model

un on: January 30, 2006, 09:06:47; Search time 161 Seconds (Without alignments)
39.439 Million cell updates/sec

Title: US-10-608-147-29
Perfect score: 53

Sequence: 1 IETWILRHP 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

d: 2166443 seqs, 705528306 residues

Total number of hits satisfying chosen parameters: 2166443

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

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Post-processing: Minimum Match 0% Maximum Match 100% Listing first 150 summaries

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Database :

UniProt\_05.80:\*
1: uniprot\_sprot:\*
2: uniprot\_tremb1:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

15	14	13	12	11	10	9	œ	7	6	5	4	ω	2		Result	
53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	Score	
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Q5V192_9FLAV	Q5V191_9FLAV	Q5V190_9FLAV	Q5V189_9FLAV	Q5V188_9FLAV	Q5VI87_9FLAV	Q5QIB6_9FLAV	012290_9FLAV	POLG_DEN2H	Q8QZ67_9FLAV	Q8QZ66_9FLAV	Q8QZ65_9FLAV	Q8Q264_9FLAV	Q66346_9FLAV	Q67424_9FLAV	ID	
Q5v192	Q5vi91	Q5vi90	Q5vi89	Q5vi88	Q5vi87	Q5qib6	012290	P29984	Q8qz67	Q8qz66	Q8qz65	Q8qz64	Q66346 ·	Q67424 ·	Description	
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9wd99 dengue vi	9w8i3 dengue vi	9d4t2 dengue vi	0904tl dengue viru	9)8ev dengue vi	9j8d9 dengue vi	9j8d8	8d7	j8d6 dengue	j8d5 dengue	dengue vi				dengue	dengue vi	dengue vi	OBgr27 dengue viru	dengue vi		dengue vi	2835 dengue vi	dengue	dengue	dengue	dengue vi	09234	d genome	d genome	d genome	P12823 d genome po	dengue	dengue	<b>خ</b> . ;	066454 dengue viru	dengue	dengue vi	Q88636 dengue viru	dengue vi	dengue	denque vi	6398 dengue	dengue	6dud9 dengue	5. £	gergre	dengue vi	duvz dengue vi	dengue vi	5vi95 dengue	vi94 dengue vi	5vi93 dengue vi

150	149	148	147	146	145	144	143	142	141	140	139	138	137	136	135	134	133	132	131	130	129
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88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7
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Q7t4n6 dengue viru	Q7t4n5 dengue viru	dengue	Q7t4n3 dengue viru	Q7t4n2 dengue viru	Q7t4n1 dengue viru	Q7t4n0 dengue viru	Q7t4m9 dengue viru	Q7t4m8 dengue viru	Q7t4m7 dengue viru	Q7t4m6 dengue viru	dengue	dengue	Q7t4m3 dengue viru	Q7t4m2 dengue viru	Q7t4m1 dengue viru	Q7t4m0 dengue viru	Q7t419 dengue viru	Q7t418 dengue viru	dengue	dengue	Q7t415 dengue viru

### ALI GNMENTS

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Q67424 9FLAV
ID Q67424 9FLAV PRELIMINARY; PRT; 120 AA.
AC Q67424;
DT Q1-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT Q1-NOV-1996 (TrEMBLrel. 24, Last annotation update)
DT Q1-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE Genomic RNA for envelope protein E N-term. (Fragment).

RN DEGREE SERVINGE.
RN NUCLEOTIDE SEQUENCE.
RN MEDLINE=87197230; PubMed=2952760;
RN MEDLINE=87197230; PubMed=295276
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RESULT
Q66346_
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Envelope protein.
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SEQUENCE
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Q66346;
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                                                                                                                                                                                                                                                                                                  01-NOV-1996 (TrEMBLrel. 01, Created)
01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
Premembrane polyprotein (Fragment).
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                                                                                                                                                                     GO; GO:0019028; C:viral capsid; IEA.
GO; GO:0019058; P:viral infectious cycle;
                                                                                                                                                                                         EMBL; X72849; CAA51363.1; -; mRNA. PIR; S40144; S40144.
                                                                                                                                                                                                             Submitted (MAY-1993) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                       Shiu S.Y.W.;
                                                                                                                                                                                                                                 STRAIN=TH-36;
                                                                                                                                                                                                                                           NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                           Flavivirus; Dengue virus group.
NCBI_TaxID=11060;
                                                                                                                                                                                                                                                                                Viruses; ssRNA positive-strand viruses,
                                                                               SEQUENCE
                                                                                                                     Polyprotein.
                                                                                                                               Pfam;
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InterPro; IPR002535; Flavi_propep.
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PF01570; Flavi_propep; 1.
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9; Conserv
                   IETWILRHP 9
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 IETWILRHP 131
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protein
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Pred. No. 0.24;
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                                                                               F498748D35909639 CRC64;
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RESULT Q8Q265 ID Q8Q265 IT Q8Q265 IT Q8Q269 IT
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ORGZ64 9 FLAV

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Best Local
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InterPro; IPR000069; Flavi M.
InterPro; IPR002535; Flavi propep.
Pfam; PF01003; Flavi capsid; 1.
Pfam; PF01004; Flavi M; 1.
Pfam; PF01570; Flavi propep; 1.
                                                                                                                                                                                                                QBQZ65_9FLAV PRELIMINARY; PRT; QBQZ65; O1-JUN-2002 (TrEMBLrel. 21, Created) O1-JUN-2002 (TrEMBLrel. 21, Last seq O1-JUN-2003 (TrEMBLrel. 24, Last ann
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01-JUN-2002 (TrEMBLrel. 21,
01-JUN-2003 (TrEMBLrel. 24,
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Q8QZ64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GO; GO:0019028; C:viral capsid; IEA.
GO; GO:0005198; F:structural molecule activity; IEA.
GO; GO:0019058; P:viral infectious cycle; IEA.
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Viruses; ssRNA positive-strand viruses, Flavivirus; Dengue virus group. NCBI_TaxID=11060;
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                                                                                            DNA stage; Flaviviridae;
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GO; GO:0005198; F:structural molecule activity; IEA.
GO; GO:0019058; P:viral infectious cycle; IEA.
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MEDLINE=21571640; PubMed=11714970;
                                                                                                                                             "Molecular epidemiology of dengue type 2 virus in Venezuela: evidence for in situ virus evolution and recombination.";
J. Gen. Virol. 82:2945-2953(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-JUN-2002 (TrEMBLrel. 21, Created)
01-JUN-2002 (TrEMBLrel. 21, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
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                                                                                      EMBL; AF360861; AAL76289.1; SMR; Q8QZ66; 21-100.
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                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=11060;
                                                                                                                                                                                                                                                                                                                                                                                                                      Flavivirus; Dengue virus
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                                                                                                                                                                                                                                                                                                                                   NUCLEOTIDE SEQUENCE.
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GO:0019028; C:viral capsid; IEA.
GO:0005198; F:structural molecule activity; IEA.
GO:0019058; P:viral infectious cycle; IEA.
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PF01004; Flavi_M; 1.
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InterPro; IPR000069; Flavi M.
InterPro; IPR002535; Flavi propep.
Pfam; PF01003; Flavi capsid; 1.
Pfam; PF01004; Flavi M; 1.
Pfam; PF01570; Flavi propep; 1.
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01-JUN-2002
01-JUN-2003
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InterPro; IPR000069; Flavi_M.
InterPro; IPR002535; Flavi_propep.
Pfam; PF01003; Flavi_capsid; 1.
Pfam; PF01004; Flavi_M; 1.
                                                                                                                                                                                                                                                                                                                                                                       SMR; Q8QZ67; 21-100.
GO; GO:0019028; C:viral capsid; IEA.
GO; GO:0005198; Fistructural molecule activity; IEA.
GO; GO:000518; P:viral infectious cycle; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             for in situ virus evolution and recombination.";
J. Gen. Virol. 82:2945-2953(2001).
EMBL, AF360860; AAL76288.1; -; Genomic_RNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Viruses; ssRNA positive-strand viruses, no DNA stage; Flaviviridae; Flavivirus; Dengue virus group.
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NON_TER
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE=21571640; PubMed=11714970;
Uzcategui N.Y., Camacho D., Comach G., Cuello de Uzcategui
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                                                                                                                                                          Polyprotein.
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31892 MW; 814A8B9B4A22AC20 CRC64;
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31892 MW; 814A8B9B4A22AC20 CRC64;
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RESULT 7
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SMB; P29984; 50-443.
InterPro; IPR011999; Flavi M.
InterPro; IPR000069; Flavi M.
InterPro; IPR000336; Flv_glyE_Ig-like.
InterPro; IPR001999; Viral glycoE_cen.
Pfam; PF02832; Flavi_glycop-C; 1.
Pfam; PF02832; Flavi_glycoprot; 1.
Pfam; PF01004; Flavi_glycoprot; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Major envelope protein E; Nonstructural protein 1 (NS1)] (Fragment).
Dengue virus type 2 (strain TH-36).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Envelope protein sequences of dengue virus isolates TH-36 and TH-3man, and identification of a type-specific genetic marker for dengue and tick-borne flaviruses."

J. Gen. Virol. 73:207-212(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUCLEOTIDE SEQUENCE [GENOMIC RNA].
MEDLINE=92113574; PubMed=1339466;
Shiu S.Y.W., Jiang W.R., Porterfield J.S., Gould E.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Flavivirus; Dengue virus group.
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01-APR-1993 (Rel. 25, Last sequence update)
13-SEP-2005 (Rel. 48, Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                P29984;
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ProDom; PD001556; Flavi glycoprotE; 1. Capsid protein; Core protein; Envelope protein; Polyprotein; Structural protein; Transmembrane.
                                                                                                                                                                                                                EMBL; D10514; BAA01389.1; -; Genomic_RNA. PIR; JQ1404; JQ1404.
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                                                                                                                                                                                                                                                                        removed.
                                                                                                                                                                                                                                                                                                       the European Bioinformatics Institute.
                                                                                                                                                                                                                                                                                                                           between
                                                                                                                                                                                                                                                                                                                                          This Swiss-Prot entry is copyright. It is produced through a collaboration
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -!- PTM: Specific enzymatic cleavages in vivo yield mature proteins
                                                                                                                                                                                                                                                                                                                                                                                            (By similarity). (By similarity). MISCELLANEOUS: The virion of this virus is a nucleocapsid covered by a lipoprotein envelope. The envelope contains two proteins: the protein M and glycoprotein E. The nucleocapsid is a complex of protein C and mRNA. In immature particles, there are 60 icosaedrally organized trimeric spikes on the surface. Each spike consists of three heterodimers of envelope protein M precursor
                                                                                                                                                                                                                                                                                                                                                                             (prM) and envelope protein E (By similarity).
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                                                                                                                                                                                                                                                                                      long as
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                                                                                                                                                                                                                                                                                                                         the Swiss Institute of Bioinformatics and the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           I ETWI LRHP
                                                                                                                                                                                                                                                                                      its content is in no way modified
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restrictions on EMBL outstation

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Glycoprotein;

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Best Local
                            R HSSP; Q88653; IOKE.

R SMR; 012290; 48-441.

R GO; GO:0019028; C:viral capsid; IEA.

R GO; GO:0019031; C:viral envelope; IEA.

R GO; GO:0019031; F:structural molecule activity; IEA.

R GO; GO:0019058; P:viral infectious cycle; IEA.

R GO; GO:0019058; P:viral infectious cycle; IEA.

R InterPro; IPR00199; Flavi_M.

R InterPro; IPR000069; Flavi_M.

R InterPro; IPR001157; Flavi_M.
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CARBOHYD
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TRANSMEM
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TRANSMEM
                                                                                                                                                                                                                                   01-JUL-1997 (TrEMBLrel. 04, Created)
01-JUL-1997 (TrEMBLrel. 04, Last seq
01-MAR-2004 (TrEMBLrel. 26, Last ann
                                                                                                                                                                                                                                                                            012290_9FLAV PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                         NON TER
                                                                                                                       Serafin I.L., Phillips D.A.;
Submitted (MAY-1997) to the EMBL/GenBank/DDBJ databases.
EMBL; AF004019; AAB61366.1; -; mRNA.
                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
                                                                                                                                                                                                       Dengue virus type 2.
Viruses; ssRNA positive-strand viruses, no DNA stage; Flaviviridae;
                                                                                                                                                                                                                            Polyprotein (Fragment).
InterPro; IPR000336; Flv_glyE_Ig-like.
InterPro; IPR011998; Viral_glycoE_cen.
Pfam; PF00869; Flavi_glycoprot; 1.
                                                                                                                                                     STRAIN=Torres Strait 1;
                                                                                                                                                                 NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                  NCBI_TaxID=11060;
                                                                                                                                                                                                Flavivirus;
                                                                                                                                                                                                                                                                                       9FLAV
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                                                                                                                                                                                                                                                                                                                                                                                Similarity 100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                             555 AA;
                                                                                                                                                                                                Dengue virus
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                                                                                                                                                                                                                                                                                                                                                                                          100.0%;
                                                                                                                                                                                               group.
                                                                                                                                                                                                                                      Last sequence update)
Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                      0; Mismatches
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By similarity.
By similarity.
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By similarity.
By similarity.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Nonstructural protein 1.
                                                                                                                                                                                                                                                                                                                                                                                 Score 53; DB 1; Length 555; Pred. No. 1.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Potential.
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                                                                                                                                                                                                                                                                               578 AA.
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RESULT 9
Q5Q1B6 9FLAV
Q5Q1B6;
DI 05G1B6;
DI 01-FEB-2
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Best Local S
Matches 9
R GO; GO:0019031; C:viral envelope; IEA.

R GO; GO:0019031; C:viral envelope; IEA.

R GO; GO:0005198; F:structural molecule activity; IEA.

R GO; GO:0019058; P:viral infectious cycle; IEA.

R GO; GO:0019058; P:viral infectious cycle; IEA.

R InterPro; IPR01999; Flavi_M.

R InterPro; IPR000369; Flavi_propep.

R InterPro; IPR001355; Flavi_propep.

R InterPro; IPR011998; Viral glycof_cen.

R InterPro; IPR011998; Viral glycof_cen.

R Pfam; PF00869; Flavi_glycoprot; 1.
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Pfam;
Pfam;
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                                                                                                                                                                                                                                                                                                                                                                              SMR; Q5QIB6; 167-560.
GO; GO:0019028; C:viral capsid; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Lorono-Pino M.A., Farfan-Ale J.A., Zapata-Peraza A.L.,
Rosado-Paredes E.P., Flores-Flores L.F., Garcia-Rejon J., Diaz F.
Blitvich B.J., Jimenez-Rios E., Blair C.D., Olson K.E., Black W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=11060;
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Q5QIB6;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                the Yucatan State of Mexico."; Am. J. Trop. Med. Hyg. 71:485-492(2004).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Beaty B.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRAIN=BC134-Merida-94;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Flavivirus; Dengue virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Viruses; ssRNA positive-strand viruses,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Dengue virus type 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Polyprotein (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-FEB-2005
                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; AY466449; AAS45234.1; -; mRNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "Introduction of the American/Asian genotype of dengue 2 virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PubMed=15516647;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PF02832; Flavi glycop_C;
PF01004; Flavi_M; 1.
PF00948; Flavi_NS1; 1.
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9; Conserv
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543
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>578
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Last annotation update)
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envelope protein.
nonstructural protein 1.
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                                                                                                                                                                                                                                                        "Introduction of the American/Asian genotype of dengue 2 virus into RT the Yucatan State of Mexico.";
RL Am. J. Trop. Med. Hyg. 71:485-492(2004).
REMBL; AY449684; AAS14975-1; -; Genomic_RNA.
REMBL; AY449687; 167-560.
REMBL; AY449688; Fiviral capsid; IEA.
REGO; GO:0019028; Civiral envelope; IEA.
REGO; GO:0019031; Civiral envelope; IEA.
REGO; GO:0019058; Fiviral infectious cycle; IEA.
REGO; GO:0005198; Fistructural molecule activity; IEA.
REMBL; AY449687; IEANINGONOSS; Filavi_M.
REMBL; AY449687; Filavi_M.
REMBL; AY449687; Filavi_M.
REMBL; AY4496887; Filavi_M.
REMBL;
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Best Local
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01-FEB-2005
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NON_TER
SEQUENCE
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01-FEB-2005
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Pfam; PF01004; Flavi_y: 1.
Pfam; PF01570; Flavi_propep; 1.
ProDom; PD001556; Flavi_glycoprotE;
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                                       Pfam;
Pfam;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Lorono-Pino M.A., Farfan-Ale J.A., Zapata-Peraza A.L.,
Rosado-Paredes E.P., Flores-Flores L.F., Garcia-Rejon J., Diaz F.
Blitvich B.J., Jimenez-Rios E., Blair C.D., Olson K.E., Black W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Viruses; ssRNA positive-strand viruses,
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ProDom; PD001556; Flavi_glycoprotE;
                                                                                                      Pfam; PF00869; Flavi_glycoprot; 1.
Pfam; PF02832; Flavi_glycop_C; 1.
                                                                                                                                                                                         InterPro; IPR000336; Flv_glyE_Ig-like.
InterPro; IPR011998; Viral_glycoE_cen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Beaty B.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PubMed=15516647;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRAIN=13382/Tizimin
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                                   PF01004; Flavi_M; 1.
PF01570; Flavi_propep; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%;
1 Similarity 100.0%;
9; Conservative 0;
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Pred. No. 1.2;
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δÃ SEES 밁 Query Match Best Local : GO; GO:0019028; C:viral capsid; IEA.

GO; GO:0019031; C:viral envelope; IEA.

GO; GO:0005198; F:structural molecule activity; IEA.

GO; GO:0019058; F:viral infectious cycle; IEA.

R GO; GO:0019058; P:viral infectious cycle; IEA.

R InterPro; IPR001999; Flavi\_glycoE\_cen.

R InterPro; IPR000069; Flavi\_propep.

R InterPro; IPR000335; Flavi\_propep.

R InterPro; IPR000335; Flavi\_propep.

R InterPro; IPR001999; Viral\_glycoE\_cen.

R Pfam; PF00899; Flavi\_glycoprot; 1.

R Pfam; PF01804; Flavi\_glycoprot; 1.

R Pfam; PF01004; Flavi\_w; 1.

R Pfam; PF01004; Flavi\_w; 1. Matches Polyprotein.
NON\_TER
NON\_TER Q5V188\_9FLAV PRELIMINARY; PRT; 661 AA. Q5V189; O1-FEB-2005 (TrEMBLrel. 29, Created) O1-FEB-2005 (TrEMBLrel. 29, Last sequence update) O1-FEB-2005 (TrEMBLrel. 29, Last annotation update) SEQUENCE Rosado-Paredes E.P., Flores-Blitvich B.J., Jimenez-Rios the Yucatan State of Mexico.";
Am. J. Trop. Med. Hyg. 71:485-492(2004).
EMBL; AY449683; AAS14974.1; -; Genomic\_RNA. Beaty B.J.; Lorono-Pino M.A., Farfan-Ale J.A., Zapata-Peraza A.L., Rosado-Paredes E.P., Flores-Flores L.F., Garcia-Rejon J., Diaz F.J., Blitvich B.J., Jimenez-Rios E., Blair C.D., Olson K.E., Black W. IV, NUCLEOTIDE SEQUENCE. NCBI\_TaxID=11060; Flavivirus; Dengue virus group. Viruses; ssRNA positive-strand viruses, no DNA stage; Flaviviridae; Polyprotein (Fragment). ProDom; PD001556; Flavi\_glycoprotE; 1. SMR; Q5VI88; 167-560. "Introduction of the American/Asian genotype of dengue 2 virus into PubMed=15516647; STRAIN=13381/Chochola 02; Polyprotein. 9FLAV 123 \_ Similarity 9; Conserv IETWILRHP 131 I ETWI LRHP 661 661 661 AA; Conservative 661 Ŗ 661 73118 MW; 9 100.0%; 661 73092 MW; , **့** Score 53; DB : Pred. No. 1.2; 482C14A6B3B179FA CRC64; CE2051C17F40A623 CRC64; Mismatches DB 2; Length 661; 0; Indels 0; Gaps 0

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Best Local
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R SMR; Q5V189; 167-560.

R GO; GO:0019028; C:viral capsid; IEA.

R GO; GO:0019031; C:viral envelope; IEA.

R GO; GO:001931; F:structural molecule activity; IEA.

R GO; GO:001958; F:viral infectious cycle; IEA.

R GO; GO:001958; P:viral infectious cycle; IEA.

R InterPro; IPR0199; Flavi_M.

R InterPro; IPR000669; Flavi_M.

R InterPro; IPR002535; Flavi_Dropep.
                          Query Match
Best Local
Matches
                                                                                                                                                                                                                                                                            InterPro; IPR000336; Flv_gTyE_1g-like.
InterPro; IPR011999; Viral glycoE_cen.
Pfam; PF00869; Flavi_glycoprot; 1.
Pfam; PF02832; Flavi_glycop_C; 1.
Pfam; PF02832; Flavi_glycop_C; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  the Yucatan State of Mexico."; Am. J. Trop. Med. Hyg. 71:485-492(2004).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Blitvich B.J., Jimenez-Rios E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRAIN=12021/Oxkutzcab
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                                                                                                                                        NON_TER
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Similarity
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~- 73080 MW;
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                       100.0%; Score 53; DB 2; 100.0%; Pred. No. 1.2;
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InterPro; IPR000069; Flavi_Dropep.
InterPro; IPR0002535; Flavi_Dropep.
InterPro; IPR000336; Fly glyE lg-like.
InterPro; IPR011998; Viral_glycoE_cen.
Pfam; PF00669; Flavi_glycoprot; 1.
Pfam; PF002832; Flavi_glycop_c; 1.
Pfam; PF01504; Flavi_glycop; 1.
Pfam; PF01570; Flavi_propep; 1.
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GC; GC:0019028; C:viral capsid; IEA.
GC; GC:0019031; C:viral envelope; IEA.
GC; GC:001905198; F:structural molecule activity; IEA.
GC; GC:0005198; P:viral infectious cycle; IEA.
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01-FEB-2005 (TrEMBLrel. 29,
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EMBL; AY449681; AAS14972.1; -; Genomic_RNA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRAIN=11936/St. Elena 01;
PubMed=15516647;
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                                                                                                                                                                                                                                                   SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Lorono-Pino M.A., Farfan-Ale J.A., Zapata-Peraza A.L.,
123
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9FLAV PRELIMINARY;
                                                            1 IETWILRHP 9
                                                                                                                      Similarity
9; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IETWILRHP
                                                                                                                                                                                                                                                                                                                                                                   PD001556; Flavi_glycoprotE; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         I ETWI LRHP
                                                                                                                                                                                                                                                   661 AA;
                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                661
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                                                                                                                                                                                                                                                661
73080 MW; 5216054D684173C0 CRC64;
                                                                                                                                                   100.0%; Score 53; DB 2; Length 661; 100.0%; Pred. No. 1.2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   group.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   , Created)
, Last sequence upo
, Last annotation u
                                                                                                                         0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sequence update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   661 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                no DNA stage; Flaviviridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         update)
                                                                                                                            0; Indels
                                                                                                                      0
                                                                                                                      Gaps
                                                                                                                         0;
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RESULT 14

Q5V191 91AV

ID Q5V191 9

AC Q5V191;

DI Q1-FEB-2

DI Q1-FE
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                                                                               9
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Best Local S
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R GO; GO:0019028; C:viral envelope; IEA.

R GO; GO:0019031; C:viral envelope; IEA.

R GO; GO:0019031; C:viral molecule activity; IEA.

R GO; GO:001903; F:structural molecule activity; IEA.

R GO; GO:0019058; F:structural molecule activity; IEA.

R GO; GO:0019058; F:structural molecule activity; IEA.

R InterPro; IPR000069; Flavi_glycoE_cen.

R InterPro; IPR000335; Flavi_propep;

R InterPro; IPR001336; Flavi_glycoE_cen.

R Pfam; Pf0089; Flavi_glycoprot; 1.

R Pfam; Pf01004; Flavi_m; I-

R Pfam; Pf01004; Pfam; I-

R Pfam; Pf01
                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                             Polyprotein.
NON_TER
NON_TER 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          the Yucatan State of Mexico.";
Am. J. Trop. Med. Hyg. 71:485-492(2004).
EMBL; XY449880; AAS14971.1; -; Genomic_RNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Lorono-Pino M.A., Farfan-Ale J.A., Zapata-Peraza A.L., Rosado-Paredes E.P., Flores-Flores L.F., Garcia-Rejon J., Diaz F. Blitvich B.J., Jimenez-Rios E., Blair C.D., Olson K.E., Black W.
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Viruses; ssRNA positive-strand viruses, no DNA stage; Flaviviridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-FEB-2005 (TrEMBLrel. 29,
01-FEB-2005 (TrEMBLrel. 29,
01-FEB-2005 (TrEMBLrel. 29,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q5VI91_9FLAV PRELIMINARY;
Q5VI91;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Polyprotein (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Introduction of the American/Asian genotype of dengue 2 virus into
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Beaty B.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PubMed=15516647;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRAIN=12914/Tekax 01;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUCLEOT I DE SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=11060;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Flavivirus; Dengue virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ProDom; PD001556; Flavi_glycoprotE;
                                                                                                                                                                                                                                                                                                                                                        SEQUENCE
123 IETWILRHP 131
                                                                                                                                                                       9;
                                                                                                                                                                                                                     100.0%; Score 53; DB 2; Similarity 100.0%; Pred. No. 1.2;
                                                                                                                                                                                                                                                                                                                                                   661
661 AA;
                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                         1
661
73080 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           group.
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Last annotation updat
                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRT;
                                                                                                                                                                                                                                                                                                                                                        5216054D684173C0 CRC64;
                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             661
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                                                                                                                                                                                0; Indels
                                                                                                                                                                                                                                                               Length 661;
                                                                                                                                                                                0
                                                                                                                                                                            Gaps
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RESULT 15 Q5VI92\_9FLAV

0

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R GO; GO:0019v2.,

PR GO; GO:0019031; C:viral envery-

PR GO; GO:0005198; F:structural molecule activity,

PR GO; GO:0005198; F:structural infectious cycle; IEA.

PR GO:0009058; P:viral infectious cycle; IEA.

PR InterPro; IPR011999; Flavi_glycoE_cen.

PR InterPro; IPR000069; Flavi_M.

PR InterPro; IPR002535; Flavi_propep.

PR InterPro; IPR002355; Flavi_propep.

PR InterPro; IPR002356; Flavi_propep.

PR InterPro; IPR00336; Flavi_propep.

PR Fam; PF00869; Flavi_glycop_C; 1.

PR Pfam; PF00832; Flavi_glycop_C; 1.

PR Pfam; PF01004; Flavi_M; 1.

PR Pfam; PF01004; Flavi_M; 1.
                                                                                                                                                                                                                                          Q5V193
ID Q5
AC Q5
DT 01
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                                                                                                                                                 8
                                                                                                                                                                                              Query Match
Best Local S
                                                                                                                                                                                 Matches
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Q5V192;
Q5V192;
Q5V192;
Q5V192;
Q5V192;
Q5V192;
Q61-FEB-2005 (TrEMBLrel. 29, Last sequence update)
Q11-FEB-2005 (TrEMBLrel. 29, Last annotation update)
Polyprotein (Fragment).
Q5VI93;
01-FEB-2005 (TrEMBLrel. 29,
01-FEB-2005 (TrEMBLrel. 29,
                                           93_9FLAV
Q5VI93_9FLAV
                                                                                                                                                                                                                                                        Polyprotein.
NON_TER
NON_TER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; AY449679; AAS14
SMR; Q5VI92; 167-560.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Lorono-Pino M.A., Farfan-Ale J.A., Zapata-Peraza A.L., Rosado-Paredes E.P., Flores-Flores L.F., Garcia-Rejon J., Diaz F. Blitvich B.J., Jimenez-Rios E., Blair C.D., Olson K.E., Black W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRAIN=C1077/Chilpancingo 97;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Flavivirus; Dengue virus group.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Viruses; ssRNA positive-strand viruses,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Am. J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           the Yucatan State of Mexico.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Beaty B.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PubMed=15516647;
                                                                                                                                                                                                                                          SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Introduction of the American/Asian genotype of dengue 2 virus into
                                                                                                                                                                                                                                                                                                                                                                                                                                                                GO:0019028; C:viral capsid; IEA.
GO:0019031; C:viral envelope; IEA.
GO:0005198; F:structural molecule activity;
                                                                                                                       123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Trop. Med. Hyg. 71:485-492(2004).
AY449679; AAS14970.1; -; Genomic_RNA.
                                                                                                                                      1 IETWILRHP 9
                                                                                                                                                                              Similarity
9; Conserv
                                                                                                                       IETWILRHP 131
                                                                                                                                                                                                                                       661
661
                                                                                                                                                                           100.0%; Score 53; DB .ilarity 100.0%; Pred. No. 1.2; Conservative 0; Mismatches
                                            PRELIMINARY;
                                                                                                                                                                                                                                          Ŗ,
                                                                                                                                                                                                                                                        661
                                                                                                                                                                                                                                         73023 MW;
 Last sequence update)
               Created)
                                                                                                                                                                                                                                          367D6F1A9F25932B CRC64;
                                            PRT;
                                            661
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                                                                                                                                                                                                             2; Length 661;
                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IEA.
                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      , Diaz F.J.,
Black W. IV,
                                                                                                                                                                                0;
                                                                                                                                                                                Gaps
                                                                                                                                                                                0
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RESULT 17
Q5V194 9FLAV
ID Q5V194 9FLAV
ID Q5V194;
DT 01-FEB-2:
DT 01-FEB-2:
DT 01-FEB-2:
DE Polyprott
OS Dengue v
OC Viruses;
                                                                                                                                                                                                                                                                                                                                                           43
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                                                                                                                                                                                                                                                                                                     Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        L Am. J. Trop. Med. Hyg. 71:485-492(2004).

R EMBL; AY449678; AAS14969.1; -; Genomic_RNA.

R SMR; Q5V193; 167-560.

R GO; GO:0019028; C:viral capsid; IEA.

R GO; GO:0019028; C:viral envelope; IEA.

R GO; GO:001908; F:structural molecule activity; IEA.

R GO; GO:001908; F:viral infectious cycle; IEA.

R GO; GO:001908; F:viral infectious cycle; IEA.

R GO; GO:0005198; F:structural molecule activity; IEA.

R InterPro; IPR000365; F:lavi_gropep.

R InterPro; IPR000335; F:lavi_gropep.

R Pfam; PF02832; F:lavi_gropep.
                                                                                                                                                                                                                                                                                      Matches
                                                     Q5V194_FELAV PRELIMINARY;
Q5V194;
01-FEB-2005 (TrEMBLrel. 29, 0
01-FEB-2005 (TrEMBLrel. 29, 1
01-FEB-2005 (TrEMBLrel. 29, 1
                                                                                                                                                                                                                                                                                                                                                                           NON_TER
                                                                                                                                                                                                                                                                                                                                                                                                                               Pfam; PF01004; Flavi_M; 1.
Pfam; PF01570; Flavi_M; 1.
ProDom: pnnn.c.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Beaty B.J.;
"Introduction of the American/Asian genotype
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Rosado-Paredes E.P., Flores-Flores L.F., Garcia-Rejon J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUCLEOTIDE SEQUENCE.
STRAIN=C-932/Acapulco 97;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-FEB-2005 (TrEMBLrel. Polyprotein (Fragment). Dengue virus type 2.
Polyprotein (Fragment).
Dengue virus type 2.
Viruses; ssRNA positive-strand viruses, no DNA stage; Flaviviridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Blitvich B.J., Jimenez-Rios E., Blair C.D., Olson K.E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PubMed=15516647;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Flavivirus; Dengue virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Viruses; ssRNA positive-strand viruses,
                                                                                                                                                                                                                                                                                                                                                                                                                             ProDom; PD001556;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               the Yucatan State of Mexico."
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                                                                                                                                                                                                                                                                                                                                                                                                         Polyprotein.
                                                                                                                                                                                                                    123
                                                                                                                                                                                                                                                    1 IETWILRHP
                                                                                                                                                                                                                                                                                     Similarity
9; Conserv
                                                                                                                                                                                                                  661
661
                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                           Ą,
                                                                                                                                                                                                                                                                                                                                                                                                                           Flavi_glycoprotE;
                                                                                                                                                                                                                                                                                                                                                         661
73024 MW;
                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                       100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      group.
                                                                                           Created)
                                                                                                                                                                                                                                                                                      0;
                                                         Last sequence update)
Last annotation updat
                                                                                                                                                                                                                                                                                                       Score 53; DB 2;
Pred. No. 1.2;
                                                                                                                             PRT;
                                                                                                                                                                                                                                                                                                                                                           0E74A2AC438791A1 CRC64;
                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                             661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        no
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DNA stage; Flaviviridae;
                                                       update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               of dengue 2 virus
                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                       Length 661;
                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Black
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               , Diaz F.J.,
Black W. IV,
                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               into
                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                      0;
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29, Last

annotation update)

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RESULT 18
Q5V195 9FLAV
1D Q5V195 9
AC Q5V195 9
AC Q5V195 10
DT 01-FEB-2
DT 01-FEB-2
DT 01-FEB-2
DE POLYPROT OS Dengue v
OC Viruses;
OC Flavivir
OX NCBI_Tax
RN (1)
RP NUCLEOTI
                                                                                                                                                                                                                                                                문
                                                                                                                                                                                                                                                                                           20
                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local S
Matches 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                L Am. J. Trop. Med. Hyg. 71:485-492(2004).

R EMBL; AY449677; AAS14968:1; -; Genomic_RNA.

R SMR; Q5V194; 167-560.

R GO; GO:0019028; C:viral capsid; 1EA.

R GO; GO:0019031; C:viral envelope; 1EA.

R GO; GO:0019038; F:structural molecule activity; 1EA.

R GO; GO:0019058; F:viral infectious cycle; 1EA.

R GO; GO:0019058; P:viral infectious cycle; 1EA.

R InterPro; 1PR011999; Flavi_M.

R InterPro; 1PR000659; Flavi_M.

R InterPro; 1PR000336; Flavi_Dropep.

R InterPro; 1PR001355; Flavi_Dryope.

R InterPro; 1PR001359; Viral_g1ycoE_cen.

R Ffam; PF00869; Flavi_g1ycoE_cen.

R Pfam; PF00869; Flavi_g1ycoE_cen.

R Pfam; PF00832; Flavi_g1ycoE_cen.

R Pfam; PF001014; Flavi_g1ycoE_C; 1.

R Pfam; PF010104; Flavi_g1ycop_C; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pfam;
Pfam;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Lorono-Pino M.A., Farfan-Ale J.A., Zapata-Peraza A.L.,
Rosado-Paredes E.P., Flores-Flores L.F., Garcia-Rejon J., Diaz F
Blitvich B.J., Jimenez-Rios E., Blair C.D., Olson K.E., Black W.
                            NCBI_TaxID=11060;
                                             Polyprotein (Fragment).
Dengue virus type 2.
Viruses; ssRNA positive-strand viruses,
Flavivirus; Dengue virus group.
                                                                                                              01-FEB-2005 (TrEMBLrel. 29, 01-FEB-2005 (TrEMBLrel. 29,
                                                                                                                                                                 Q5VI95 9FLAV PRELIMINARY;
Q5VI95;
                                                                                                                                                                                                                                                                                                                                                                                                              NON_TER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Beaty B.J.;
                                                                                                                                                01-FEB-2005 (TrEMBLrel. 29, Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                        Polyprotein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        the Yucatan State of Mexico.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Introduction of the American/Asian genotype of dengue 2 virus into
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PubMed=15516647;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRAIN=BC17/Merida 96;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=11060;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Flavivirus; Dengue virus
   NUCLEOTIDE SEQUENCE
                                                                                                                                                                                                                                                                123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PF01004; Flavi_M; 1.
PF01570; Flavi_prope
                                                                                                                                                                                                                                                                                1 IETWILRHP 9
                                                                                                                                                                                                                                                                                                                             Similarity
9; Conserve
                                                                                                                                                                                                                                                                                                                                                                                                                                                         PD001556; Flavi_glycoprotE;
                                                                                                                                                                                                                                                                IETWILRHP 131
                                                                                                                                                                                                                                                                                                                                                                                             661
661 AA;
                                                                                                                                                                                                                                                                                                                             100.0%; Score 53; DB 2; Length 661; ilarity 100.0%; Pred. No. 1.2; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                             661
73056 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        _propep; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     group.
                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                Last sequence update)
Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                             7CAB5A842F2CA044 CRC64;
                                                                                                                                                                                PRT;
                                                                                                                                                                                661
                                                                 no DNA stage; Flaviviridae;
                                                                                                                                                                                ₹
                                                                                                              update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       , Diaz F.J.,
Black W. IV,
                                                                                                                                                                                                                                                                                                                               0;
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201966
1D Q55
1D Q55
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2
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R SNR; Q5V195; 167-560.

R GO; GO:0019028; Crviral capsid; IEA.

R GO; GO:0019028; Crviral envelope; IEA.

R GO; GO:0019031; Crviral envelope; IEA.

R GO; GO:0019058; Frieroctural molecule activity; IEA.

R GO; GO:0019058; Frieroctural molecule activity; IEA.

R GO; GO:0019058; Frierial infectious cycle; IEA.

R InterPro; IRR011999; Flavi_MycoE_cen.

R InterPro; IPR000069; Flavi_MycoE_cen.

R InterPro; IPR000336; Flavi_DycoE_cen.

R InterPro; IPR001998; Viral_glycoE_cen.

R InterPro; IPR011998; Viral_glycoE_cen.

R Pfam; PF00805; Flavi_glycop-C; 1.

R Pfam; PF01004; Flavi_glycop-C; 1.

R Pfam; PF01004; Flavi_propep; 1.
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Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
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NON_TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                Q5V196_FLAV PRELIMINARY; PRT; 661 AA. Q5V196; CTEMBLrel. 29, Created) 01-FEB-2005 (TrEMBLrel. 29, Last sequence update) 01-FEB-2005 (TrEMBLrel. 29, Last annotation update) 01-FEB-2005 (TrEMBLrel. 29, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          the Yucatan State of Mexico."; Am. J. Trop. Med. Hyg. 71:485-492(2004).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Introduction of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Beaty B.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRAIN=BC139/Quintana Roo
PubMed=15516647;
                                                                                                                                                                                                                                           Viruses; ssRNA positive-strand
                                                                                                                                                                                                                                                                          Polyprotein (Fragment).
Dengue virus type 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ProDom; PD001556; Flavi_glycoprotE;
                                                                                       NUCLEOTIDE SEQUENCE.
STRAIN=SJL1482/Mexico 84;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Polyprotein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Lorono-Pino M.A., Farfan-Ale J.A.,
Lorono-Pino M.A., Farfan-Ale J.A., Zapata-Peraza A.L.,
Rosado-Paredes E.P., Flores-Flores L.F., Garcia-Rejon J.,
                                                              PubMed=15516647;
                                                                                                                                                                                                           Flavivirus; Dengue virus group.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9FLAV
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| 123 ||ETWILRHP ||131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 IETWILRHP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
9; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      661
661
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milarity 100.0%;
Conservative 0;
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661
73120 MW;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        94;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 53; DB 2; Length 661; Pred. No. 1.2;
                                                                                                                                                                                                                                              viruses,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2F4A06810C54EF4D CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                 DNA stage; Flaviviridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 , Diaz F.J.,
Black W. IV,
      Diaz F.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
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RESULVATION OF THE PROPERTY OF
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 InterPro; IPR011999; Flavi_glycoE_cen.
InterPro; IPR000689; Flavi_Dropep.
InterPro; IPR000335; Flavi_Dropep.
InterPro; IPR000335; Flv glyE_lg-like.
InterPro; IPR011998; Viral_glycoE_cen.
Pfam; PF00689; Flavi_glycoprot; 1.
Pfam; PF00832; Flavi_glycoprot; 1.
Pfam; PF01570; Flavi_glycop; 1.
Pfam; PF01570; Flavi_Bropep; 1.
                                                                                                                           Cruz A.C.R., Vasconcelos P.F.C., rertutta A..., Jabor A.V., da Rosa E.S.T., Galler R.;
Submitted (WAY-2004) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                 QSDIVZ;
QSOCT-2004 (TREMBLrel. 28, Created)
25-OCT-2004 (TREMBLrel. 28, Last sequence update)
25-OCT-2004 (TREMBLrel. 28, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                            Structural polyprotein (Fragment).
Dengue virus type 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GO; GO:0005198; F:structural molecule activity; IEA. GO; GO:0019058; P:viral infectious cycle; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      <u>පි</u> පි
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SMR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Am. J. Trop. Med. Hyg. 71:485-492(2004).
EMBL; AY449675; AAS14966.1; -; Genomic_RNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Introduction of the American/Asian genotype of the Yucatan State of Mexico.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Blitvich B.J.,
                                                                                         SMR; Q6DUV2; 176-569.
                                                                                                                        EMBL; AY642588; AAT58366.1; -; Genomic_RNA.
                                                                                                                                                                                                                                              NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                    Flavivirus; Dengue virus group.
                                                                                                                                                                                                                                                                                                                                                                Viruses; ssRNA positive-strand viruses,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q6DUV2_9FLAV PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ProDom;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Beaty B.J.;
                                                                                                                                                                                                                                                                                                     NCBI_TaxID=11060;
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9FLAV
GO:0019028; C:viral capsid; IEA.
GO:0019031; C:viral envelope; IEA.
GO:0005198; F:structural molecule activity; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GO:0019028; C:viral capsid; IEA. GO:0019031; C:viral envelope; IE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PD001556; Flavi_glycoprotE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IETWILRHP 131
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   661 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                Vasconcelos P.F.C., Ferreira A.P., Vasconcelos H.B., da Rosa E.S.T., Galler R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Jimenez-Rios E., Blair C.D., Olson K.E., Black W.
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100.0%; Pred. No. 1.2;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                716
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                                                                                                                                                                                                                                                                                                                                                                no DNA stage; Flaviviridae;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          InterPro; IPR011999; Flavi_dlycoE_cen.
InterPro; IPR000689; Flavi_NS1.
InterPro; IPR0001157; Flavi_NS1.
InterPro; IPR002555; Flavi_propep.
InterPro; IPR002536; Flavi_propep.
InterPro; IPR001988; Viral_glycoE_cen.
Pfam; PF00869; Flavi_glycoprot; 1.
Pfam; PF00832; Flavi_glycop_C; 1.
Pfam; PF00832; Flavi_glycop_C; 1.
Pfam; PF00848; Flavi_NS1; 1.
                                                                                                                       EMBL; AY778960; AAW51131.1; -; Genomic_RNA. 60; G0:0019028; C:viral capsid; IEA. 60; G0:0019031; C:viral envelope; IEA. 60; G0:0019031; F:structural molecule activity; 60; G0:0019058; P:viral infectious cycle; IEA. InterPro; IPR011999; Flavi_glycoE_cen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10-MAY-2005
10-MAY-2005
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ProDom; PD001556; Flavi_glycoprotE;
ProDom; PD001496; Flavi_NS1; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Cruz A.C.R., Vasconcelos P.F.C., Ferreira A.P., Vasconcelos H.B., Jabor A.V., Travassos da Rosa E.S., Galler R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      $1cu9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q51CU9_9FLAV PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE
                                                InterPro; InterPro;
                                                                                                                                                                                                                                                                                                                                                                                             Submitted (OCT-2004) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                             Brazil.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Flavivirus; Dengue virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Viruses; ssRNA positive-strand viruses,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Polyprotein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Genetic characterization of Dengue virus 2 and 3 isolated from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRAIN=RGN53;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NCBI_TaxID=11060;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Dengue virus type 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Polyprotein (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10-MAY-2005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9FLAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GO:0019058; P:viral infectious cycle;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  132 IETWILRHP 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 IETWILRHP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
IPR000069; Flavi_M.
IPR001157; Flavi_NS1.
IPR002535; Flavi_propep.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5 (TrEMBLrel. 30, 5 (TrEMBLrel. 30, 17 (TrEMBLrel. 30, 18 (TremBLrel. 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               716 AA;
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716
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79209 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Last sequence update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 53; DB 2; Length 716; Pred. No. 1.3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DE2DA70891395C7F CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      no DNA stage; Flaviviridae;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              update)
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R SyR; 06KEK9; 190-583.

R SyR; 06C (CO:0019028; C:viral envelope; IEA.

R GO; GO:0019023]; C:viral envelope; IEA.

R GO; GO:00019031; C:viral envelope; IEA.

DR GO; GO:0005198; F:structural molecule activity; IEA

DR (CO:0019058; P:viral infectious cycle; IEA.

DR InterPro; IPR001999; Flavi M;

DR InterPro; IPR000069; Flavi M;

DR InterPro; IPR000069; Flavi M;

DR InterPro; IPR000335; Flavi M;

DR InterPro; IPR00336; Flavi M;

DR InterPro; IPR00336; Flavi M;

DR Pfam; PF00869; Flavi M;

DR Pfam; PF00869; Flavi M;

DR Pfam; PF00832; Flavi M;

DR Pfam; PF00804; Flavi M;

DR Pfam; PF01004; Flavi M;
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Q6KEK9
                                       TO DR R TO DR TO DR R TO DR TO D
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Best Local S
Matches 9
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InterPro; IPR011998; Viral_glycoE_cen.
Pfam; PF00869; Flavi_glycoprot; 1.
Pfam; PF02832; Flavi_glycop_C; 1.
Pfam; PF02849; Flavi_M; 1.
Pfam; PF01570; Flavi_NS1; 1.
Pfam; PF01570; Flavi_propep; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Polyprotein.
NON_TER
NON_TER 7
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Pfam;
Pfam;
Pfam;
Pfam;
                                                                                                                                                                                                                                                                                                                                                                                                                  "Cloning and expression of the gene coding for protein of dengue virus typ 2."; Submitted (JUN-2003) to the EMBL/ GenBank/DDBJ EMBL; AJ574886; CAE00500.1; -; Genomic_RNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bach Thi Q.N., Truong Uyen N., Truong Nguyen Thi H.H., Dinh Duy K.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           05-JUL-2004 (TrEMBLrel. 27, 05-JUL-2004 (TrEMBLrel. 27, 05-JUL-2004 (TrEMBLrel. 27,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q6KEK9_9FLAV
Q6KEK9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ProDom; PD001556; Flavi_glycoprotE;
ProDom; PD001496; Flavi_NS1; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=12637;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Flavivirus; Dengue virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Viruses; ssRNA positive-strand viruses,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Dengue virus.
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9_9FLAV
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IETWILRHP 142
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724
80036 MW;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   group.
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Last annotation updat
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2; Length 724;
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                                 RT "Genetic characterization of Dengue virus type 2 and 3 from Brazil.";

RE Submitted (AUG-2004) to the EMBL/GenBank/DDBJ databases.

REMBL; AY714062; AAU93389.1; -; Genomic_RNA.

BR SG; GO:0019028; C:viral capsid; IEA.

BR GG; GO:0019031; C:viral envelope; IEA.

BR GG; GO:0019031; C:viral envelope; IEA.

BR GG; GO:0019031; C:viral envelope; IEA.

BR GG; GO:0019031; C:viral infectious cycle; IEA.

BR GG; GO:0019031; F:structural molecule activity; IEA.

BR GG; GO:0019031; F:structural molecule; IEA.

BR InterPro; IPR001122; Flavi_dapsidC.

BR InterPro; IPR001122; Flavi_dapsidC.

BR InterPro; IPR001157; Flavi_MIS1.

BR InterPro; IPR001157; Flavi_NS1.

BR InterPro; IPR00333; Flavi_propep.

BR InterPro; IPR00333; Flavi_propep.

BR InterPro; IPR001199; Viral_glyE_IG=I.

BR Ffam; BP01003; Flavi_capsid; 1.

BR Ffam; BP01003; Flavi_capsid; 1.
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Best Local S
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CHAIN
NON_TER
NON_TER
                                                                                                                                                                                                                                                                                                                                                                                                                      Q5S8P1_9FLAV PRELIMINARY;
Q5S8P1;
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CHAIN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE
  Pfam;
Pfam;
Pfam;
Pfam;
                                                                                                                                                                                                                                                            STRAIN=ROR1812;
Cruz A.C.R., Vasconcelos P.F.C., Ferreira A.P., Vasconcelos
                                                                                                                                                                                                                                                                                                                                                                    Structural polyprotein (Fragment).
                                                                                                                                                                                                                                                Jabor A.V., da Rosa E.S.T., Galler R.;
                                                                                                                                                                                                                                                                                                                             Flavivirus; Dengue virus group.
                                                                                                                                                                                                                                                                                                                                          Viruses; ssRNA positive-strand viruses, no DNA stage; Flaviviridae;
                                                                                                                                                                                                                                                                                                                                                        Dengue virus
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                                                                                                                                                                                                                                                                                           NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=11060;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   9FLAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     146 IETWILRHP
PF00869; Flavi_glycoprot; 1. PF02832; Flavi_glycop_C; 1. PF01004; Flavi_M; 1.
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190
685
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                                                                                                                                                                                                                                                                                                                                                        type 2.
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Flavi_propep; 1.
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Flavi_NS1; 1.
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684
744
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envelope protein E.
non structural protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 53;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pred. No. 1.4;
                                                                                                                                                                                                                                                                                                                                                                                                                                      PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           91514AD61E91CF8E CRC64;
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DR DR DR FTT FTT SQ
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Best Local S
Matches 9
                                       R GO; GO:0019028; C:viral capsid; IEA.
R GO; GO:0019031; C:viral envelope; IEA.
R GO; GO:0005198; F:structural molecule activity; IEA
R GO; GO:0019058; P:viral infectious cycle; IEA.
R InterPro; IPR001122; Flavi_capsidC.
R InterPro; IPR001129; Flavi_glycoE_cen.
R InterPro; IPR000069; Flavi_M.
R InterPro; IPR000059; Flavi_NS1.
R InterPro; IPR000315; Flavi_propep.
R InterPro; IPR000336; Flavi_propep.
R InterPro; IPR000336; Flavi_propep.
R InterPro; IPR0011998; Viral_glycoE_cen.
R Ffam; PF000303; Flavi_capsid; 1.
R Pfam; PF000869; Flavi_glycoprot; 1.
R Pfam; PF02832; Flavi_glycoprot; 1.
R Pfam; PF02832; Flavi_glycoprot; 1.
R Pfam; PF01004; Flavi_M; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NON_TER
NON_TER
SEQUENCE
                                                                                                                                                                                                                                                              Jabor A.V., da Rosa E.S.T., Galler R.;
"Genetic characterization of Dangue virus type 2 and 3 from Brazil.";
Submitted (AUG-2004) to the EMBL/GenBank/DDBJ databases.
EMBL; AY714061; AAU93388.1; -; Genomic_RNA.
EMBR; 0558P2; 213-606.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-FEB-2005 (TrEMBLrel. 29, Created)
01-FEB-2005 (TrEMBLrel. 29, Last sequence update)
01-FEB-2005 (TrEMBLrel. 29, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pfam; PF00948; Flavi NS1; 1.
Pfam; PF01570; Flavi propep; 1.
ProDom; PD001556; Flavi glycoprotE;
ProDom; PD001496; Flavi NS1; 1.
                Pfam;
Pfam;
                                                                                                                                                                                                                                                                                                                                       Cruz A.C.R.,
                                                                                                                                                                                                                                                                                                                                                                                                                             Viruses; ssRNA positive-strand viruses,
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Structural polyprotein (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q5S8P2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q5S8P2_9FLAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Polyprotein.
                                                                                                                                                                                                                                                                                                                                                       STRAIN=MIG1269;
                                                                                                                                                                                                                                                                                                                                                                   NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                            Flavivirus; Dengue virus group.
                                                                                                                                                                                                                                                                                                                                                                                                                                         Dengue virus type 2.
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9FLAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        169 IETWILRHP 177
               PF00948; Flavi_NS1; 1.
PF01570; Flavi_propep; 1.
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PD001556; Flavi_glycoprotE; 1.
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757
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                                                                                                                                                                                                                                                                                                                                       Vasconcelos P.F.C., Ferreira A.P., Vasconcelos H.B.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRELIMINARY;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                             no DNA stage; Flaviviridae;
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                                                                                                                                                                                                                         IEA.
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Q6DUD9
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FT
SQ
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2 GO; GO:0019028; C:viral capsid; IEA.

3 GO; GO:0019031; C:viral envelope; IEA.

3 GO; GO:0019031; C:viral molecule activity; IEJ.

R GO; GO:0005198; F:structural molecule activity; IEJ.

R GO; GO:0019089; P:viral infectious cycle; IEA.

R GO; GO:0019089; P:lavi_d; CapsidC.

R InterPro; IPR01127; Flavi_d; CapsidC.

R InterPro; IPR01157; Flavi_M: M:

InterPro; IPR001157; Flavi_NS1.
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Best Local
                                                                                                                                     InterPro; IPR00233; Flavi propep.
InterPro; IPR00236; Flv_glyE_lg-like.
InterPro; IPR001998; Viral glycoE_cen.
Pfam; PF01003; Flavi_capsid; 1.
Pfam; PF00869; Flavi_glycoprot; 1.
Pfam; PF02832; Flavi_glycop_C; 1.
Pfam; PF00048; Flavi_M; 1.
Pfam; PF00948; Flavi_MS1; 1.
Pfam; PF01570; Flavi_propep; 1.
ProDom; PD001556; Flavi_glycoprotE; 1.
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NON_TER
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                             Polyprotein.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           25-OCT-2004 (TrEMBLrel. 28, 25-OCT-2004 (TrEMBLrel. 28, 25-OCT-2004 (TrEMBLrel. 28,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q6DUD9_9FLAV PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Dengue virus type 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Structural polyprotein (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q6DUD9;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Viruses; ssRNA positive-strand viruses, no DNA stage; Flaviviridae;
                                                                                                             ProDom; PD001496; Flavi_NS1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                25
_9FLAV
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AY644452; AAT68021.1; -; Genomic_RNA.
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9; Conservative (
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757 AA;
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757 AA;
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83859 MW;
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Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Created)
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Pred. No. 1.4;
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E32D6A1E6152F4F6 CRC64;

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RESULT
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             Query Match
                                                                                                                                                InterPro; IPR001122; Flavi_capsidC.
InterPro; IPR001999; Flavi glycoE_cen.
InterPro; IPR001059; Flavi M.
InterPro; IPR001157; Flavi_NS1.
InterPro; IPR002535; Flavi_propep.
InterPro; IPR002335; Flavi_glyE_lg-like.
InterPro; IPR011998; Viral_glycoE_cen.
Pfam; PF01003; Flavi_capsid; 1.
Pfam; PF00869; Flavi_glycoprot; 1.
Pfam; PF02332; Flavi_glycoprot; 1.
Pfam; PF02332; Flavi_glycopc; 1.
Pfam; PF00840; Flavi_M; 1.
                                                                                                                                                                                                                                                                                                                                                                                                          STRAIN-RORI811;
CTUZ A.C.R., Vasconcelos P.F.C., Ferreira A.P., Vasconcelos H.B.,
Jabor A.V., Travassos da Rosa E.S., Galler R.;
"Genetic characterization of Dengue virus 2 and 3 isolated from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q51CU8_9FLAV PRELIMINARY;
Q51CU8;
                                                                                                                                       Pfam;
                                                                                                                                                                                                                                                                                                          GO; GO:0005198; F:structural molecule activity; IEA. GO; GO:0019058; P:viral infectious cycle; IEA.
                                                                                                                                                                                                                                                                                                                                     EMBL; AY778961; AAW51132.1; -; Genomic_RNA. GO; GO:0019028; C:viral capsid; IEA. GO; GO:0019031; C:viral envelope; IEA.
                                                                                                                                                                                                                                                                                                                                                                                              Brazil.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUCLEOTIDE SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Flavivirus; Dengue virus group.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Viruses; ssRNA positive-strand viruses,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Dengue virus type 2.
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                                                                    Polyprotein.
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                                                                                              ProDom; PD001496; Flavi_NS1; 1.
                                                                                                          ProDom; PD001556; Flavi_glycoprotE; 1.
                                                                                                                                                                                                                                                                                                                                                                                Submitted (OCT-2004) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10-MAY-2005 (TrEMBLrel. 30, Created)
10-MAY-2005 (TrEMBLrel. 30, Last sequence update)
10-MAY-2005 (TrEMBLrel. 30, Last annotation update)
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9FLAV
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                                                                                                                        PF00948; Flavi_NS1; 1.
PF01570; Flavi_propep; 1.
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Similarity 100.0%;
9; Conservation
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84631 MW;
100.0%;
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Pred. No. 1.4;
Score 53; DB
Pred. No. 1.4;
                                        0511E7D900193EB4 CRC64;
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             DB 2;
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           Length 763;
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Best Local Similarity

20

1 IETWILRHP 9

Query Match

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RESULT
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Query Match
Best Local Similarity
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                                                                                                                                                                                                                                     RR HSSF; Q88653; 10KE.

RR SMR; Q66398; 22-99, 281-674.

RR SMR; Q66398; 22-99, 281-674.

RR GO; GO:0019028; C:viral capsid; IEA.

RR GO; GO:0019031; C:viral envelope; IEA.

RR GO; GO:00190519; F:structural molecule activity; IEA.

RR GO; GO:0019058; F:viral infectious cycle; IEA.

RR InterPro; IPR001122; Flavi capsidC.

RR InterPro; IPR011999; Flavi glycoE_cen.

RR InterPro; IPR00253; Flavi propep.

RR InterPro; IPR00253; Flavi propep.

RR InterPro; IPR00253; Flavi propep.

RR InterPro; IPR001199; Viral glycoE_cen.

RP Fam; PF01003; Flavi capsid; 1.

RP Fam; PF01003; Flavi glycoprot; 1.

RR Pfam; PF01004; Flavi propep; 1.

RR Pfam; PF01570; Flavi propep; 1.

RR Pfam; PF01570; Flavi propep; 1.

RR Pfam; PF01570; Flavi propep; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mexican strain affects neurovirulence in mice.";
J. Gen. Virol. 77:2541-2545(1996).
EMBL; L04561: AAR47100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL; L04561; AAB42180.1; -; Genomic_RNA.
PIR; A48644; A48644.
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01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
01-NAR-2004 (TrEMBLrel. 26, Last annotation update)
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Q66398;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sanchez I.J., Ruiz B.H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE=97042288; PubMed=8887488;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STRAIN=Mexican,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=11060;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Viruses; ssRNA positive-strand viruses, no DNA stage; Flaviviridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Dengue virus type 2.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUCLEOTIDE SEQUENCE.
                                                                                                                                                           SEQUENCE
                                                                                                                                                                                           YON TER
                                                                                                                                                                                                                        Polyprotein.
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90 RESULT 29 Q8QY63\_9FLAV 뭉 8 Query Match Best Local S Matches 9 R GO; GO:0019028; C:viral capsid; IEA.
R GO; GO:0019031; C:viral envelope; IEA.
R GO; GO:0005198; F:structural molecule activity; IEA.
R GO; GO:0005198; F:structural molecule activity; IEA.
R GO; GO:0019058; P:viral infectious cycle; IEA.
R InterPro; IPR001122; Flavi\_capsidC.
R InterPro; IPR011999; Flavi\_glycoE\_cen.
R InterPro; IPR000355; Flavi\_propep.
R InterPro; IPR000336; Flavi\_propep.
R InterPro; IPR000336; Flavi\_propep.
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R Pfam; PF01004; Flavi\_glycoprot; 1. QBQY62\_9FLAV PRELIMINARY; 01-JUN-2002 (TrEMBLrel. 21, Created)
01-JUN-2002 (TrEMBLrel. 21, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update) NON\_TER Pfam; HSSP; Q88653; 10KE. SMR; Q8QY62; 21-100, Submitted (JAN-2002) to the EMBL/GenBank/DDBJ databases. EMBL; AF469176; AAL79018.1; -; Genomic\_RNA. Submitted (JAN-2002) to Zhao W.Z NUCLEOTIDE SEQUENCE. STRAIN=GD08/98; Flavivirus; Dengue virus group. NCBI\_TaxID=11060; Viruses; ssRNA positive-strand viruses, Dengue virus type 2. Polyprotein (Fragment). Q8QY62; SEQUENCE ProDom; PD001556; Pfam; Ren R.W., Fang M.Y., Tian X.D., Liu J.W., Jiang L.H., Lin L.H., Polyprotein. 28 9FLAV 237 PF01004; Flavi\_M; 1. PF01570; Flavi\_propep; 1. \_ 9; Similarity IETWILRHP 9 IETWILRHP 245 775 100.0%; Score 53; DB 2; Length 775; llarity 100.0%; Pred. No. 1.5; Conservative 0; Mismatches 0; Indels 775 ξ Flavi\_glycoprotE; 775 36090 MW; 281-674 PRT; 64BE26AB0BF96B2C CRC64; 775 AA. no DNA stage; Flaviviridae; 0 Gaps

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GO; GO:0005199; F:structural molecule activity; IEA.
GO; GO:0005199; F:structural molecule activity; IEA.
GO; GO:0019058; F:viral infectious cycle; IEA.
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InterPro; IPR001199; Flavi_glycoE_cen.
InterPro; IPR000036; Flavi_Dropep.
InterPro; IPR00033; Flavi_Dropep.
InterPro; IPR00033; Flavi_Dropep.
InterPro; IPR00033; Flavi_Dropep.
InterPro; IPR00033; Flavi_glycoE_cen.
Pfam; PF01003; Flavi_glycoE_cen.
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HSSP; Q88653; 10KE.
SMR; Q8QY63; 21-100, 281-674.
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R GG; GG:0019031; C:viral envelope; IEA.
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R GG; GG:0019058; P:viral infectious cycle; IEA.
R InterPro; IPR001122; Flavi_capsidC.
R InterPro; IPR001129; Flavi_glycoE_cen.
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"Molecular epidemiology of dengue type 2 virus in Venezuela: evidence for in situ virus evolution and recombination.";
J. Gen. Virol. 82:2945-2953(2001).
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NCBI_TaxID=11060;
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Viruses; ssRNA positive-strand viruses, no DNA stage; Flaviviridae;
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GenCore version 5.1.6 Copyright (c) 1993 - 2006 Compugen Ltd.

OM protein - protein search, using sw model

un on: January 30, 2006, 09:07:47; Search time 39 Seconds (without alignments) 22,204 Million cell updates/sec

Title: US-10-608-147-29
Perfect score: 53
Sequence: 1 IETWILRHP 9

Gapop 10.0 , Gapext 0.5

BLOSUM62

Scoring table:

Searched: 283416 seqs, 96216763 residues

283416

Total number of hits satisfying chosen parameters:
Minimum DB seq length: 0
Maximum DB seq length: 200000000

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 150 summaries

Database: PIR 80:\*
1: pir1:\*
2: pir2:\*
3: pir3:\*
4: pir4:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

### SUMMARIES

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581 15 166 189 200	3944 3944 445	2089 3738	2004	1212	1181	921 991	775	715	574	490	485	484 484	476	455	200	433	322	309	308	281	264	258	235	190	190	115	28	3434	3432	1163	1109	1008	824		924				465	25.7
2 T08846 2 C84035 2 A95973 2 D65072 2 C82224	2 T19997 2 T19997 2 A83245				2 D86157	2 AE1827		2 T22787	8/650.I	2 \$31450	1 \$19677	2 S25002 2 S26214	1 \$19679	2 \$56695	2 D69939	2 C84619	2 S28125	2 C97959	2 G95091	2 A42941				2 E81907			2 н69191	1 GNWVMV	1 GNWVJS	1 GNWVY8	1 B45345		2 Н90647		2 141490	2 150804			2 E85355	2 583760
asparagine synthas hypothetical prote hypothetical expor hypothetical prote probable alpha-rib	hypothetical prote hypothetical prote probable two-compo	ATM-like protein [ hypothetical prote	probable membrane	probable two-compo	hypothetical prote	hypothetical prote	ubiquitin carboxyl	hypothetical prote		1-aminocyclopropan	1-aminocyclopropan	1-aminocyclopropan	1-aminocyclopropan	1-aminocyclopropan	conserved hypothet	probable serine ca	gas-vesicle operon	conserved hypothet	oxidoreductase, al	TIR protein - Meth	hypothetical prote	probable hydroxyac	hypothetical prote	probable lipoate-p	lipoate-protein li	Ig heavy chain V-D	hypothetical prote	genome polyprotein	genome polyprotein		HIV-1 retropepsin	hypothetical prote	ATP-dependent heli	helicase, ATP-depe	ATP-dependent heli	boryprotein - Japa	hypothetical prote	1-aminocyclopropan	hypothetical prote	remotherical prote

150	149	148	147	146	145	144	143	142	141	140	139	138	137	136	135	134	133	132	131	130	129	128
33	<u>ω</u>	33	33	<b>ω</b>	33	33	33	33	33	33	<u>з</u>	33	33	33	33	33	33	33	33	33	33	33
62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3
466	460	456	455	455	447	365	365	343	330	310	305	305	304	298	290	274	272	264	262	226	216	203
N	Ν	N	2	2	2	2	-	N	2	2	2	2	2	2	N	2	2	N	N	N	2	Ν
A64754	B85079	S61170	A85944	E91098	F81678	G83250	A44764	H95879	T30981	T35417	AC1513	AH1 154	G85714	T20044	E85709	S64523	C87711	F70790	C87197	E82677	G82532	AI2445
probable integrase	hypothetical prote	BCS1 protein precu	hypothetical prote	probable oxidoredu	GTP-binding protei	chorismate mutase	chorismate mutase	probable sugar ABC	hypothetical prote	probable beta-lact	oxidoreductase hom	oxidoreductase hom	hypothetical prote	hypothetical prote	unknown protein en	translation elonga	hydrolase, alpha/b	probable hydrolase	probable hydrolase	conserved hypothet	outer membrane lip	hypothetical prote

#### ALI GNMENTS

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premembrane protein - dengue virus type 2
C;Species: dengue virus type 2
C;Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 31-Dec-2004
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                                                                                                                                                                                                                                                                                                              NID:g437772; PIDN:CAA51363.1; PID:g939865
C;Superfamily: hepatitis C virus genome polyprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  submitted to the EMBL Data Library, May 1993 A; Reference number: S40144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C; Accession: S40144
genome polyprotein - dengue virus type 2 (strain TH-36) (fragment)
                        JQ1404
                                                                                                                                                                                                                                                                                                                                                                A;Cross-references: UNIPROT:Q66346; UNIPARC:UPI00000F6DD9; EMBL:X72849;
                                                                                                                                                                                                                                                                                                                                                                                        A; Residues: 1-166 <SHI>
                                                                                                                                                                                                                                                                                                                                                                                                               A; Molecule type: mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Accession: S40144
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                                                                                                                                                                                                                  Best Local Similarity
Matches 9; Conserva
                                                                                                                                                                                                                                                                 Query Match
                                                                                                                         123
                                                                                                                                                                   1 IETWILRHP 9
                                                                                                                         IETWILRHP 131
                                                                                                                                                                                                             100.0%; Score 53; DB 2; ilarity 100.0%; Pred. No. 0.039; Conservative 0; Mismatches 0
                                                                                                                                                                                                                       0;
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                                                                                                                                                                                                                     Indels
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Query Match

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R;Shiu, S.Y.W.; Jiang, W.R.; Porterfield, J.S.; Gould, E.A.
J. Gen. Virol. 73, 207-212, 1992
A;Title: Envelope protein sequences of dengue virus isolates TH-36 and TH-Sman, and identification of a type-specific genetic marker for dengue and tick-borne
                                                                                                                                                                                                                                                                                                                                                                 \mbox{A;Description:} Nucleotide sequence and deduced amino-acid sequence of the structural proteins of Dengue type 2 virus Mexican genotype.
                                                                                                                                                                                                                                                                                                                                                                                                                                      R;Ruiz, B.H.; Sanchez, I.; Ortega, G.J.; Lopez, I.; Ortiz-Ortiz, L. submitted to GenBank, October 1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         polyprotein - dengue virus type 2 (strain Mexican) (fragment)
C;Species: dengue virus type 2
C;Date: (07-Apr-1994 #sequence_revision 07-Apr-1994 #text_change 31-Dec-2004
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F;545-555/Product: nonstructural protein NS1 (fragment) #status predicted <NON>
F;116,202/Binding site: carbohydrate (Asn) (covalent) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DDBJ:D01074; NID:g221248; PIDN:BAA01389.1; PID:g221249 C;Superfamily: hepatitis C virus genome polyprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Molecule type: genomic RNA
A; Residues: 1-555 <SHI>
A; Cross-references: UNIPROT: P29984; UNIPARC: UP10000131DF8; GB:D10514;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Reference number: JQ1404; MUID:92113574; PMID:1339466 A;Accession: JQ1404
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                                                              C; Keywords: polyprotein
                                                                                                 C; Superfamily: hepatitis C virus genome polyprotein
                                                                                                                                   NID:g323652; PIDN:AAB42180.1; PID:g554632
                                                                                                                                                                                                  A; Molecule type: genomic RNA
A; Residues: 1-775 < RUI>
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F;50-544/Product: envelope protein E #status predicted <ENV>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C; Keywords: envelope protein; glycoprotein; nonstructural protein; polyprotein;
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                                                                                                                                                                  A; Cross-references: UNIPROT: Q66398; UNIPARC: UPI00000EEE45; GB: L04561;
                                                                                                                                                                                                                                                                   A;Status: preliminary
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                                                                                                                                                                                                                                                                                                                              A;Reference number: A48644
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            h 100.0%; Score 53; DB 2. Similarity 100.0%; Pred. No. 0.13; 9; Conservative 0; Mismatches
100.0%; Score 53;
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DB 2;
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Length 775;
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F;206-280/Product: membrane protein #status predicted <MMP>
F;281-775/Product: envelope protein #status predicted <ENP>
F;776-1188/Product: nonstructural protein NSI #status predicted <NSI> C;Keywords: ATP; capsid protein; envelope protein; glycoprotein; membrane protein; nonstructural protein; nucleotide binding; P-loop PIDN:AAA42962.1; PID:g323655 C;Superfamily: hepatitis C virus genome polyprotein  $\lambda_{\ell}T$  itle: Nucleotide sequence of dengue 2 RNA and comparison of the encoded proteins with those of other flaviviruses. 밁 20 F;2489-3388/Product: nonstructural protein NS5 #status predicted <NS5> F;183,347,433,905,982,1134,1174,1329,1369,2298,2302,2384,2454,2482,2641,2662,270 F;2091-2376/Product: nonstructural protein NS4a #status predicted <N4A>F;2377-2488/Product: nonstructural protein NS4b #status predicted <N4B> F;1668-1675/Region: nucleotide-binding motif A (P-loop)
F;1755-1760/Region: nucleotide-binding motif B F;1189-1345/Product: nonstructural protein NS2a #status predicted <N2A>F;1346-1475/Product: nonstructural protein NS2b #status predicted <N2B>F;1376-2090/Product: nonstructural protein NS3 #status predicted <NS3> F;115-205/Domain: nonterminal signal sequence #status predicted <SIG> F;115-280/Product: membrane protein precursor #status predicted A;Cross-references: UNIPARC:UPI0000131DFB; GB:M19197; NID:g323654; A; Molecule type: genomic RNA A; Residues: 1-3388 < HAH> A; Accession: A29972 A;Reference number: A29972; MUID:88101365; PMID:2827375 Virology 162, 167-180, 1988 Strauss, E.G. R;Hahn, Y.S.; C;Accession: A29972 C;Date: 30-Jun-1989 #sequence\_revision 30-Jun-1989 #text\_change 31-Dec-2004 C; Species: dengue virus type 2 NS4b; nonstructural protein NS5 protein NS1; nonstructural protein NS2a; nonstructural protein NS2b; nonstructural protein NS3; nonstructural protein genome polyprotein - dengue virus type 2 (strain PR159/S1)
N;Contains: capsid protein; envelope protein; membrane protein; nonstructural F;1759-1762/Region: DEAH motif F;2-114/Product: capsid protein #status predicted <CAP> ,2711/Binding site: carbohydrate (Asn) (covalent) #status predicted Best Local Similarity
Matches 9; Conserv Matches Query Match Best Local Similarity 1 IETWILRHP 9 1 IETWILRHP 9 Galler, R.; Hunkapiller, T.; Dalrymple, J.M.; Strauss, J.H.; IETWILRHP 245 Conservative Conservative 100.0%; 100.0%; 0; ç, Score 53; DB 1; Pred. No. 0.81; Pred. No. 0.18; Mismatches Mismatches 1; Length 3388; 0 0. Indels Indels <MPP> 0; 0; Gaps Gaps 0 0 문

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237 IETWILRHP 245

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A;Title: Comparison of a dengue-2 virus and its candidate vaccine derivative: sequence relationships with the flaviviruses and other viruses.
A;Reference number: A42451; MUID:92188532; PMID:1312269
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  N;Contains: capsid protein G; envelope protein E; membrane-associated protein nonatructural protein NSI; nonstructural protein NSI; nonstructural protein NSZ; nonstructural protein NSZ; nonstructural protein NSZ; nonstructural protein NSZ; protein NSZ; nonstructural protein NSZ; nonstructur
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               F;1128-1345/Product: nonstructural protein NS2a #status predicted <N2A>F;1346-1474/Product: nonstructural protein NS2b #status predicted <N2B>F;1475-2093/Product: nonstructural protein NS3 #status predicted <NS3>
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F;1-114/Product: capsid protein C #status predicted <CPC>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NID:g323472; PIDN:AAA73185.1; PID:g323473
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F;2492-3391/Product: nonstructural protein NS5 #status predicted <NS5>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       F;1668-1675/Region: nucleotide-binding motif A (P-loop) F;1755-1760/Region: nucleotide-binding motif B
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8
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                                                                                                                                                                     Matches
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                                                                                                                                                                                                                                  100.0%;
                                                                                                                                                                                                                                                                                                      100.0%; Score 53;
                                                                                                                                                              0;
                                                                                                                                                                                                                                  Pred. No. 0.81;
                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                      DB 1; Length 3391;
                                                                                                                                                              0;
                                                                                                                                                              0;
                                                                                                                                                                     0
```

genome polyprotein - dengue virus type 2 (strain 16681-PDK53)

protein NS4b; nonstructural protein NS5 N;Contains: capsid protein C; envelope protein E; membrane-associated protein M; nonstructural protein NS2a; nonstructural protein NS2b; nonstructural protein NS3; nonstructural protein NS4a; nonstructural

C; Species: dengue virus type 2

C;Date: 31-Dec-1992 #sequence\_revision 31-Dec-1992 #text\_change 31-Dec-2004 C; Accession: B42451

R;Blok, J.; McWilliam, S.M.; Butler, H.C.; Gibbs, A.J.; Weiller, G.; Herring, B.L.; Hemsley, A.C.; Aaskov, J.G.; Yoksan, S.; Bhamarapravati, N. Virology 187, 573-590, 1992

A;Title: Comparison of a dengue-2 virus and its candidate vaccine derivative: sequence relationships with the flaviviruses and other viruses.
A;Reference number: A42451; MUID:92188532; PMID:1312269

A;Accession: B42451

A; Molecule type: genomic RNA

A;Residues: 1-3391 <BLO>
A;Residues: 1-3391 <BLO>
A;Cross-references: UNIPROT:P29991; UNIPARC:UPI0000131DF6; GB:M85259

C; Superfamily: hepatitis C virus genome polyprotein

C;Keywords: ATP; capsid protein; envelope protein; glycoprotein; nonstructural protein; nucleotide binding; P-loop; polyprotein; transmembrane protein

F;1-114/Product: capsid protein C #status predicted <CPC>F;50-66/Domain: transmembrane #status predicted <TM1>

F;102-118/Domain: transmembrane #status predicted <TM2>

F;115-280/Product: membrane-associated protein M precursor #status predicted

F;268-284/Domain: transmembrane #status predicted <TM3> F;206-280/Product: membrane-associated protein M #status predicted F;115-205/Domain: nonterminal signal sequence #status predicted <SIG> APPV ^MPM>

F;727-743/Domain: transmembrane #status predicted <TM4>F;757-773/Domain: transmembrane #status predicted <TM5> F;281-775/Product: envelope protein E #status predicted <EPE>

F;776-1127/Product: nonstructural protein NS1 #status predicted

F;1272-1288/Domain: transmembrane #status predicted <TM7> F;1158-1174/Domain: transmembrane #status predicted <TM6> F;1128-1345/Product: nonstructural protein NS2a #status predicted <N2A> <NS1>

F;1294-1310/Domain: transmembrane #status predicted <TM9>
F;1346-1474/Product: nonstructural protein NS2b #status predicted
F;1351-1367/Domain: transmembrane #status predicted <TM9> <N2B3

F;1373-1389/Domain: transmembrane #status predicted <TMA>

F;1475-2093/Product: nonstructural protein NS3 #status predicted <NS3>F;1668-1675/Region: nucleotide-binding motif A (P-loop)
F;1755-1760/Region: nucleotide-binding motif B F;1448-1464/Domain: transmembrane #status predicted <TMB>

F;1759-1762/Region: DEAH motif

F;2148-2164/Domain: transmembrane #status predicted <TMC> F;2094-2243/Product: nonstructural protein NS4a #status predicted

F;2197-2213/Domain: transmembrane #status predicted <TME>F;2227-2243/Domain: transmembrane #status predicted <TMF> F;2174-2190/Domain: transmembrane #status predicted <TMD>

F;2352-2368/Domain: transmembrane #status predicted <TMG> F;2244-2491/Product: nonstructural protein NS4b #status predicted <N4B>

F;2411-2427/Domain: transmembrane #status predicted <TMH>F;2492-3391/Product: nonstructural protein NS5 #status pr #status predicted <NS5>

> 4,2714/Binding site: carbohydrate (Asn) (covalent) #status predicted F;183,347,433,905,982,1134,1174,1329,2301,2305,2346,2387,2457,2485,2644,2665,270

Matches Query Match Best Local 9; Similarity 100.0%; Conservative 100.08; 0; Pred. No. 0.81; Score 53; Mismatches DB 1; Length 3391; ç, 0;

Gaps

0;

NS2b; nonstructural protein NS3; nonstructural protein NS4a; nonstructural genome polyprotein - dengue virus type 2 (strain Jamaica) N;Contains: capsid protein C; envelope protein E; membrane-associated protein M; nonstructural protein NS1; nonstructural protein NS2a; nonstructural protein

protein NS4b; nonstructural protein NS5 C;Species: dengue virus type 2

C;Date: 30-Sep-1989 #sequence\_revision 30-Sep-1989 #text\_change 31-Dec-2004 A29199

C;Accession: A94346; A94378; A25613; A2R;Deubel, V.; Kinney, R.M.; Trent, D.W.

Virology 155, 365-377, 1986

of the structural

A; Title: Nucleotide sequence and deduced amino acid sequence proteins of dengue type 2 virus, Jamaica genotype. A; Reference number: A94346; MUID:87071658; PMID:3024394

A; Accession: A94346

A; Molecule type: genomic RNA A; Residues: 1-791 <DE1>

A;Cross-references: UNIPROT:P07564; UNIPARC:UP100001710BB; GB:M15975 R;Deubel, V.; Kinney, R.M.; Trent, D.W. Virology 165. 234-244, 1988 A;Title: Nucleotide sequence and deduced amino acid sequence of the

nonstructural proteins of dengue type 2 virus, Jamaica genotype: comparative

analysis of the full-length genome.
A;Reference number: A94378; MVID:88265864; PMID:3388770 A; Accession: A94378

A; Molecule type: genomic RNA

A; Residues: 792-3391 < DE2>

C; Superfamily: hepatitis C virus genome polyprotein A;Cross-references: UNIPARC:UPI0000174A05; GB:M20558

C; Keywords: ATP; capsid protein; envelope protein; glycoprotein; nonstructural

protein; nucleotide binding; P-loop; polyprotein; transmembrane protein F;2-114/Product: capsid protein C #status predicted <CPC>

F;43-59/Domain: transmembrane #status predicted <TM1>

F;115-280/Product: membrane-associated protein M precursor #status predicted F;101-117/Domain: transmembrane #status predicted <TM2>

F;206-280/Product: membrane-associated protein M #status predicted F;268-284/Domain: transmembrane #status predicted <TM3> F;115-205/Domain: nonterminal signal sequence #status predicted <SIG> AMPA\

F;281-775/Product: envelope protein E #status predicted <EPE>F;727-743/Domain: transmembrane #status predicted <TM4>

F;757-773/Domain: transmembrane #status predicted <TM5>
F;776-1127/Product: nonstructural protein NS1 #status predicted <NS1> F;1128-1345/Product: nonstructural protein NS2a #status predicted <N2A>

F;1346-1474/Product: nonstructural protein NS2b #status predicted <N2B>
F;1475-2093/Product: nonstructural protein NS3 #status predicted <NS3>
F;1668-1657/Region: nucleotide-binding motif A (P-loop)
F;1755-1760/Region: nucleotide-binding motif B
F;1759-1762/Region: DEAH motif A;Residues: 1-3391 <IRI>
A;Residues: 1-3391 <IRI>
A;Cross-references: UNIPROT:Q9Q4T2; UNIPROT:Q9WLZ4; UNIPROT:Q9UBD; UNI
UNIPROT:Q9JB04; UNIPROT:Q91U94; UNIPROT:Q9WLZ5; UNIPROT:Q9JBD5; UNI
UNIPROT:Q9WDA4; UNIPROT:Q9WDA2; UNIPROT:Q9JBD5; UNI
UNIPROT:Q9WDA7; UNIPROT:Q9Z554; UNIPROT:Q9Z834; UNIPROT:Q9JBD3; UNI
UNIPROT:Q9WDA7; UNIPROT:Q9Z754; UNIPROT:Q9Z834; UNIPROT:Q9JBD3; UNI
UNIPROT:Q9WB7; UNIPROT:Q9Z83; UNIPROT:Q9ZBD7; UNIPROT:Q9JBD3; UNI
UNIPROT:Q9JBE0; UNIPROT:Q9W813; UNIPROT:Q9ZBD7; UNIPROT:Q9WDA3; UNI
UNIPROT:Q9JBE0; UNIPROT:Q9W813; UNIPROT:Q9ZBD7; UNIPROT:Q9WDA3; UNI 문 F;2094-2243/Product: nonstructural protein NS4a #status predicted <N4A> F;2244-2491/Product: nonstructural protein NS4b #status predicted <N4B> F;2244-2491/Product: nonstructural protein NS5 #status predicted <NS5> F;2492-3991/Product: nonstructural protein NS5 #status predicted <NS5> F;2492-3991/Product: nonstructural protein NS5 #status predicted <NS5> Covalent) #status predicted C;Keywords: ATP; envelope protein; glycoprotein; nonstructural protein; nucleotide binding; P-loop; polyprotein; transmembrane protein F;2-114/Product: capsid protein #status predicted <CAP> Virology 163, 93-103, 1988 A; Title: Functional and ant strain). A; Title: Sequence analysis of cloned dengue virus type 2 genome (New Guinea-C R;Irie, K.; Mohan, P.M.; Sasaguri, Y.; Putnak, R.; Padmanabhan, Gene 75, 197-211, 1989 C;Date: 30-Jun-1992 #sequence\_revision 30-Jun-1992 #text\_change 31-Dec-2004 C;Accession: JS0219; A28646 protein NS4B; nonstructural protein NS5 C;Species: dengue virus type 2 NS2B; nonstructural protein NS3; nonstructural protein NS4A; nonstructural polyprotein - dengue virus type 2 (strain New Guinea-C)
N;Contains: capsid protein; envelope protein; membrane glycoprotein;
nonstructural protein NS1; nonstructural protein NS2A; nonstructural A; Cross-references: UNIPARC: UPI0000178549 A; Accession: A28646 A; Reference number: A28646; MUID:88160069; PMID:2964755 glycoprotein NS-1. R; Putnak, J.R.; Charles, P.C.; Padmanabhan, R.; Irie, UNIPROT:092835; UNIPROT:009234 A; Molecule type: genomic RNA A; Accession: JS0219 A; Reference number: Matches Query Match Best Local Similarity Functional and antigenic 237 IETWILRHP 245 1 IETWILRHP 9 749-1227 <PUT> 9; Conservative genomic RNA JS0219; MUID:89232751; PMID:2714651 100.0%; 0; Score 53; DB 1. Pred. No. 0.81; domains Mismatches of the DB 1; dengue-2 ç, Length 3391; K.; Hoke, C.H.; Burke, nonstructural protein ; UNIPROT:Q9J8D8; ; UNIPROT:Q9YKL3; ; UNIPROT:Q9Q4T1; ; UNIPROT:Q11875; UNIPROT: Q9J8D6; 0 Gaps 0;

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                F;1346-1475/Product: nonstructural protein NS2B #status predicted <NSB>F;1476-2093/Product: nonstructural protein NS3 #status experimental <NS3>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    F;115-280/Product: membrane glycoprotein #status predicted <MEM>
F;115-205/Domain: nonterminal signal sequence #status predicted <SIG>
F;206-280/Product: membrane glycoprotein #status predicted <MEB>
                                                                                                                                                                                                                            experimental
F;347,433,1134,1174,2301,2485,2665,2714/Binding site: carbohydrate (Asn)
                                                                                                                                                                                                                                                                                 F;183,905,982,2305,2457,2704/Binding site: carbohydrate (Asn) (covalent)
                                                                                                                                                                                                                                                                                                         F;2380-2491/Product: nonstructural protein NS4B #status predicted <a href="f">f</a>;2492-3391/Product: nonstructural protein NS5 #status experimental.</a>
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                                                                                                                                                                                                      (covalent) #status predicted
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237 IETWILRHP 245
                                               1 IETWILRHP 9
                                                                                                  9;
                                                                                                                            Similarity
                                                                                                    Conservative
                                                                                                                            100.0%;
                                                                                                    0;
                                                                                                                               Pred. No. 0.81;
                                                                                                                                                    Score 53;
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Search completed: January 30, 2006, 09:16:46
Job time: 43 secs

# GenCore version 5.1.6 Copyright (c) 1993 - 2006 Compugen Ltd.

OM protein - protein search, using sw model

tun on: January 30, 2006, 09:13:08; Search time 7 Seconds (without alignments)
13.923 Million cell updates/sec

Title: US-10-608-147-29 Perfect score: 53

Sequence: 1 IETWILRHP 9

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5
Searched: 75621 seqs, 10829074 residues

Total number of hits satisfying chosen parameters: 75621

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

imum uB seq rengin: 2000000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 150 summaries

Database: Published\_Applications\_AA\_New:\*

1: /cgn2\_6/ptodata/1/pubpaa/USO8\_NEW\_PUB.pep:\*

2: /cgn2\_6/ptodata/1/pubpaa/USO8\_NEW\_PUB.pep:\*

3: /cgn2\_6/ptodata/1/pubpaa/USO7\_NEW\_PUB.pep:\*

4: /cgn2\_6/ptodata/1/pubpaa/PCT\_NEW\_PUB.pep:\*

5: /cgn2\_6/ptodata/1/pubpaa/USI0\_NEW\_PUB.pep:\*

6: /cgn2\_6/ptodata/1/pubpaa/USI0\_NEW\_PUB.pep:\*

7: /cgn2\_6/ptodata/1/pubpaa/USI0\_NEW\_PUB.pep:\*

8: /cgn2\_6/ptodata/1/pubpaa/USGO\_NEW\_PUB.pep:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

### SUMMARIES

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	Sequence 1040, Ap Sequence 2, Appli	Sequence 2, Appli	Sequence 6, Appli	Sequence 7, Appli	Sequence 15, Appl	Sequence 89, Appl	Sequence 370, App	Sequence 372, App	Sequence 373, App	Sequence 368, App	Sequence 367, App	Sequence 371, App	Sequence 318, App	Sequence 317, App	Sequence 117, App	Sequence 227, App	Sequence 33, Appl	Sequence 32, Appl	Sequence 228, App	Sequence 288, App	Sequence 320, App	Sequence 7704, Ap	Sequence 2868, Ap	Sequence 1, Appli

Search completed: January 30, 2006, 09:19:11 Job time : 7 secs

# GenCore version 5.1.6 Copyright (c) 1993 - 2006 Compugen Ltd.

OM protein - protein search, using sw model

Run on: January 30, 2006, 09:10:38; Search time 61 Seconds (without alignments) 61.647 Million cell updates/sec

Title:
Perfect score:
Sequence: US-10-608-147-29 53

Scoring table: 1 IETWILRHP 9

BLOSUM62 Gapop 10.0 , Gapext 0.5

Searched:

1867569

1867569 seqs, 417829326 residues

Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 08
Maximum Match 1008
Listing first 150 summaries

Database :

Published\_Applications\_AA\_Main:\*

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

### SUMMARIES

Result	Score	Query Match	Query Match Length DB		ID	Description
1	53	100.0	9	5	US-10-608-147-29	Sequence 29, Appl
2	53	100.0	21	5	US-10-608-147-36	Sequence 36, Appl
ω	53	100.0	32	Ş	US-10-608-147-35	Sequence 35, Appl
4	53	100.0	39	Ç	US-10-608-029-23	Sequence 23, Appl
ر.	53	100.0	40	4	US-10-311-213-3	Sequence 3, Appli
6	53	100.0	40	5	US-10-608-029-25	Sequence 25, Appl
7	53	100.0	40	5	US-10-608-147-31	Sequence 31, Appl
œ	53	100.0	48	4	US-10-311-213-32	Sequence 32, Appl
9	53	100.0	167	4	US-10-375-932-122	Sequence 122, App
10	53	100.0	171	4	US-10-375-932-118	Sequence 118, App
11	53	100.0	171	4	US-10-375-932-121	Sequence 121, App

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US-10-486-307-24	US-10-230-026-24	US-10-108-260A-4592	US-10-437-963-109214	US-10-732-923-8250	US-10-732-923-8259	US-10-425-115-334872	US-10-276-774-2362	US-10-424-599-169020	US-10-424-599-182862	US-10-408-765A-1952	US-10-369-493-11927	US-10-437-963-109217	US-10-437-963-114079	US-10-437-963-127257	US-10-425-115-207892	US-10-259-165-432	US-10-259-165-100	US-10-424-599-226470	US-10-424-599-266809	US-10-424-599-230978	US-10-424-599-156609	US-10-437-963-102911	US-10-369-493-433	US-10-956-085-12
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### ALI GNMENTS

US-10-608-147-29

US-10-608-147-29

Sequence 29, Application US/10608147

Publication No. US20050080231A1

APPLICANT: DESPRES, Philippe

APPLICANT: CATTEAU, Adeline

TITLE OF INVENTION: SMALL PEPTIDES HAVING APOPTOTIC ACTIVITIES AND THEIR

APPLICATIONS

FILE REFERENCE: 239786US0CIP

CURRENT APPLICATION NUMBER: US/10/608,147

CURRENT FILING DATE: 2003-06-30

PRIOR FILING DATE: 2003-05-19

PRIOR APPLICATION NUMBER: US 10/311,213

PRIOR FILING DATE: 2001-06-18

PRIOR APPLICATION NUMBER: US 60/212,129

PRIOR APPLICATION NUMBER: US 60/212,129

PRIOR FILING DATE: 2000-06-16

NUMBER OF SEQ ID NOS: 40

SOFTWARE: Patentin version 3.1

SEQ ID NO 29

LENGTH: 9

TYPE: PRT
ORGANISM: Dengue virus type 2

FEATURE:

NAME/KEY: misc\_feature
OTHER INFORMATION: Peptide of the M protein confering apoptotic activity

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Sequence 35, Application US/10608147
Publication No. US20050080231A1
GENERAL INFORMATION:
APPLICANT: DESPRES, Philippe
APPLICANT: CATTEAU, Adeline
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Matches 9; Conserv
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APPLICANT: CATTEAU, Adeline
TITLE OF INVENTION: SMALL PEPTIDES HAVING APOPTOTIC ACTIVITIES AND THEIR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION NUMBER: US 10/311,213
PRIOR FILLING DATE: 2003-05-19
PRIOR APPLICATION NUMBER: PCT/IB01/01570
PRIOR FILLING DATE: 2001-06-18
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CURRENT FILING DATE: 2003-06-30
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: PatentIn version 3.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: PRT
ORGANISM: Dengue virus type 2
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; OTHER INFORMATION: M9-40/DEN-2 US-10-608-147-35
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US-10-608-029-23
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; APPLICANT: DESPRES, PHILLIPE
; APPLICANT: CATTEAU, ADELINE
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SEQ ID NO 23
LENGTH: 39
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                                Best Local Similarity 100.0%; Score 53; DB 5; Length 39; Matches 9; Conservative 0: Miamonal
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CURRENT FILING DATE: 2003-06-50
PRIOR APPLICATION MYMBER: US 10/311,213
PRIOR FILING DATE: 2003-05-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: SMALL PEPTIDES HAVING APOPTOTIC ACTIVITIES AND THEIR
                                                                                                                                                                                                                                                                                           FILE REFERENCE: 239783US0
CURRENT APPLICATION NUMBER: US/10/608,029
CURRENT FILING DATE: 2003-06-30
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                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: AND THEIR APPLICATIONS
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NAME/KEY: misc_feature
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                                                                                                                                                                                                                                                                                                                               Sequence 25, Application US/10608029
Publication No. US20040266987A1
GEMERAL INFORMATION:
                                        CURRENT APPLICATION NUMBER: US/10/608,029
CURRENT FILING DATE: 2003-06-30
NUMBER OF SEQ ID NOS: 36
SOFTWARE: Patentin version 3.2
SEQ ID NO 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQ ID NO 3
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Publication No. US20040101862A1
                                                                                                                                                                                                                                                      APPLICANT: DESPRES, PHILLIPE
APPLICANT: CATTEAU, ADELINE
TITLE OF INVENTION: ATTENUATED FLAVIVIRUS STRAINS CONTAINING A MUTATED M-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 100.0%; Score 53; DB 4; Length 40; Best Local Similarity 100.0%; Pred. No. 0.21; Matches 9; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: DESPRES, Philippe
APPLICANT: COMPAGEOT, Marie-Pierre
APPLICANT: DEUBEL, Vincent
APPLICANT: CATTEAU, Adeline
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CURRENT FILING DATE: 2002-12-16
PRIOR APPLICATION NUMBER: PCT/IB01/01570
PRIOR FILING DATE: 2001-06-18
PRIOR APPLICATION NUMBER: US 60/212,129
PRIOR FILING DATE: 2000-06-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: PRO-APOPTOTIC FRAGMENTS OF THE DENGUE VIRUS ENVELOPE
                                                                                                                                                                             FILE REFERENCE: 239783US0
                                                                                                                                                                                                        TITLE OF INVENTION: AND THEIR APPLICATIONS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER OF SEQ ID NOS: 33
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TYPE: PRT
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32 ||ETWILRHP 40
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US-10-608-029-25
; Sequence 32, Application US/10311213

; Publication No. US20040101862A1

; GEMERAL INFORMATION:

; APPLICANT: DESPRES, Philippe

; APPLICANT: COURAGEOT, Marie-Pierre
                                                                                                                                                                                                                                                                                                                                                                                           ; OTHER INFORMATION: M1-40/DEN-2 US-10-608-147-31
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; Publication No. US20050080231A1
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Best Local Similarity 100.0%;
Matches 9; Conservative 0
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                                                                                                                                                                                                                                                                                                  Query Match 100.0%; Score 53; DB 5; Length 40; Best Local Similarity 100.0%; Pred. No. 0.21; Matches 9; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR FILING DATE: 2001-06-18
PRIOR APPLICATION NUMBER: US 60/212,129
PRIOR FILING DATE: 2000-06-16
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/10/608,147
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILE REFERENCE: 239786US0CIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM: Dengue virus type 2 FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME/KEY: misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: PRT
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                                                                                                                                       ; OTHER INFORMATION: Synthetic polypeptide: 23C12 REST OF C15/PRM US-10-375-932-122
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                                              Matches
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                                       Query Match 100.0%; Score 53; DB 4; Length 167; Best Local Similarity 100.0%; Pred. No. 0.76; Matches 9; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION NUMBER: US/10/311,213
CURRENT FILING DATE: 2002-12-16
PRIOR APPLICATION NUMBER: PCC/1801/01570
PRIOR FILING DATE: 2001-06-18
                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Brinkman, Alice M.
TITLE OF INVENTION: NOVEL FLAVIVIRUS ANTIGENS
FILE REFERENCE: 0322.210US
CURRENT APPLICATION NUMBER: US/10/375,932
CURRENT FILING DATE: 2003-02-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION NUMBER: US 60/212,129
PRIOR FILING DATE: 2000-06-16
NUMBER OF SEQ ID NOS: 33
                                                                                                                                                                                                                                                                                            PRIOR APPLICATION NUMBER: US 60/360,030 PRIOR FILING DATE: 2002-02-26 NUMBER OF SEQ ID NOS: 345 SOFTWARE: FastSEQ for Windows Version 4.0
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APPLICANT:
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                                                                                                                                                                                            TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                     FEATURE:
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  1 IETWILRHP 9
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CATTEAU, Adeline
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LENGTH: 171
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Publication No. US20040009469A1
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APPLICANT: Punnonen, Juha
APPLICANT: Brinkman, Alice M.
TITLE OF INVENTION: NOVEL FLAVIVIRUS ANTIGENS
SOFTWARE: FastSEQ for Windows Version 4.0 SEQ ID NO 121
LENGTH: 171
TYPE: PRT
                                                                                                                                                              APPLICANT: Punnonen, Juha
APPLICANT: Brinkman, Alice M.
TITLE OF INVENTION: NOVEL FLAVIVIRUS ANTIGENS
FILE REFERENCE: 0322.210US
CURRENT APPLICATION NUMBER: US/10/375,932
CURRENT FILING DATE: 2003-02-26
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CURRENT APPLICATION NUMBER: US/10/375,932
CURRENT FILING DATE: 2003-02-26
PRIOR APPLICATION NUMBER: US 60/360,030
PRIOR FILING DATE: 2002-02-26
                                                                                       PRIOR APPLICATION NUMBER: US 60/360,030 PRIOR FILING DATE: 2002-02-26 NUMBER OF SEQ ID NOS: 345
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ORGANISM: Artificial Sequence

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139 IETWILRHP 147

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; FEATURE:
; OTHER INFORMATION: Synthetic polypeptide:
US-10-375-932-121
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                                                                                                                                            GENERAL INFORMATION:
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Best Local Similarity 100.0%; Pred. No. 0.78;
Matches 9; Conservative 0; Mismatches
APPLICANT: Punnonen, Juha
APPLICANT: Brinkman, Alice M.
APPLICANT: Brinkman, Alice M.
TITLE OF INVENTION: NOVEL FLAVIVIRUS ANTIGENS
FILE REFERENCE: 0322.210US
CURRENT APPLICATION NUMBER: US/10/375,932
                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 100.0%; Score 53; DB 4; Length 675; Best Local Similarity 100.0%; Pred. No. 2.7;
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APPLICANT: Brinkman, Alice M.
APPLICANT: Brinkman, Alice M.
TITLE OF INVENTION: NOVEL FLAVIVIRUS ANTIGENS
FILE REFERENCE: 0322.210US
CURRENT APPLICATION NUMBER: US/10/375,932
CURRENT FILING DATE: 2003-02-26
CURRENT FILING DATE: 2003-02-26
                                                                                                                       APPLICANT: Apt, Doris
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURE: OTHER INFORMATION: Synthetic polypeptide:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: PRT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH: 675
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RESULT 14
US/10/375
                                                                                                                       ; OTHER INFORMATION: Synthetic polypeptide: 16G11-25B10ext (16G11 extended to C15/full length prN/full length E with 25B10 residues-of-E-protein-US/10/375,932-251
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; Publication No. US20040009469A1
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SEQ ID NO 237
LENGTH: 675
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APPLICANT: Punnonen, Juha
APPLICANT: Brinkman, Alice M.
TITLE OF INVENTION: NOVEL FLAVIVIRUS ANTIGENS
FILE REFERENCE: 0322.210US
                                              Matches
                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION NUMBER: US/10/375,932
CURRENT FILING DATE: 2003-02-26
PRIOR APPLICATION UNUBER: US 60/360,030
PRIOR FILING DATE: 2002-02-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CURRENT FILING DATE: 2003-02-26
PRIOR APPLICATION NUMBER: US 60/360,030
PRIOR FILING DATE: 2002-02-26
                                                                                                                                                                                                                                                                                                              NUMBER OF SEQ ID NOS: 345
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                                                                                                                                                                                                     TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OTHER INFORMATION: Synthetic polypeptide: 25B10 (C15/full length prM/full
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: PRT
                                                                                                                                                                                             FEATURE:
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                                                                                                                                                                                                                                                   LENGTH: 675
                                            Local Similarity hes 9; Conserve
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      1 IETWILRHP 9
                                              Conservative
                                          100.0%; Score 53; DB 4; Length 675; 100.0%; Pred. No. 2.7; ative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
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139 IETWILRHP 147

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RESULT 15
US/10/375
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 16
US-10-375-932-238
length E)
                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
APPLICANT: Apt. Doris
APPLICANT: Punnonen, Juha
APPLICANT: Brinkman, Alice M.
TITLE OF INVENTION: NOVEL FLAVIVIRUS ANTIGENS
FILE REFERENCE: 0322.210US
                                                                                                                                           SOFTWARE: FastSEQ for Windows Version 4.0 SEQ ID NO 238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQ ID NO 253
LENGTH: 675
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 238, Application US/10375932 Publication No. US20040009469A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Punnonen, Juha
APPLICANT: Brinkman, Alice M.
TITLE OF INVENTION: NOVEL FLAVIVIRUS ANTIGENS
FILE REFERENCE: 0322.210US
CURRENT APPLICATION NUMBER: US/10/375,932
CURRENT FILING DATE: 2003-02-26
                                                                                                                                                                                                                 CURRENT APPLICATION NUMBER: US/10/375,932
CURRENT FILING DATE: 2003-02-26
PRIOR APPLICATION NUMBER: US 60/360,030
PRIOR FILING DATE: 2002-02-26
                                                                                                                                                                                        NUMBER OF SEQ ID NOS: 345
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                                                                                        TYPE: PRT
                    OTHER INFORMATION: Synthetic polypeptide:
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ORGANISM: Artificial Sequence
                                                  FEATURE:
                                                                    ORGANISM: Artificial Sequence
                                                                                                                      LENGTH: 677
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                 25D4 (C15/full length prM/full
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                                                             ; APPLICANT: Apt, Doris
; APPLICANT: Punnonen, Juha
; APPLICANT: Brinkman, Alice M.
; TITLE OF INVENTION: NOVEL FLAVIVIRUS ANTIGENS
; FILE REFERENCE: 0322.210US
                                                                                                                                                                                                ; Sequence 228, Application US/10375932; Publication No. US20040009469A1
                                                                                                                                                                                                                                           US-10-375-932-228
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                                                                                                                                                                                                                                                                  RESULT 18
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; APPLICANT: Punnonen, Juha
; APPLICANT: Brinkman, Alice M.
; TITLE OF INVENTION: NOVEL FLAVIVIRUS ANTIGENS
; FILE REFERENCE: 0322.210US
                                                                                                                                                                            ; GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity 100.0%; Score 53; DB 4; Length 681; Matches 9; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION NUMBER: US 60/360,030
PRIOR FILING DATE: 2002-02-26
NUMBER OF SEQ ID NOS: 345
SOFTWARE: FastSEQ for Windows Version 4.0
CURRENT APPLICATION NUMBER: US/10/375,932
CURRENT FILING DATE: 2003-02-26
PRIOR APPLICATION NUMBER: US 60/360,030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION NUMBER: US/10/375,932
CURRENT FILING DATE: 2003-02-26
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGTH: 681
TYPE: PRT
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US-10-375-932-238

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CURRENT APPLICATION NUMBER: US/10/500,796A
CURRENT FILING DATE: 2004-07-06
PRIOR APPLICATION NUMBER: PCT/US02/10764
PRIOR FILING DATE: 2002-04-04
PRIOR FILING DATE: 2002-04-04
PRIOR FILING DATE: 2001-04-04
PRIOR FILING DATE: 2001-04-04
PRIOR APPLICATION NUMBER: 09/701,536
PRIOR FILING DATE: 2000-11-29
PRIOR APPLICATION NUMBER: PCT/US99/12298
PRIOR FILING DATE: 1999-06-03
PRIOR APPLICATION NUMBER: PCT/US99/12298
PRIOR FILING DATE: 1999-06-03
PRIOR APPLICATION NUMBER: PCT/US99/12298
PRIOR APPLICATION NUMBER: 60/087,908
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 100.0%; Score 53; DB 4; Length 681; Best Local Similarity 100.0%; Pred. No. 2.7; Matches 9; Conservative 0; Mismatches 0; Indels
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NUMBER OF SEQ ID NOS: 345
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 228
                                                                                                                                                                                                                                                                                                                       SEQ ID NO 43
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Query Match 100.0%; Score 53; DB 5; Length 685; Best Local Similarity 100.0%; Pred. No. 2.7; Matches 9; Conservative 0; Mismatches 0; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Chang, Gwong-Jen J.
TITLE OF INVENTION: NUCLEIC ACID VACCINES FOR PREVENTION OF FLAVIVIRUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: represented by the Secretary of the Department of Health and APPLICANT: Human Services, Centers for Disease Control and Prevention
                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQ ID NOS: 61
SOFTWARE: PatentIn version 3.3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILE REFERENCE: 6395-64909-02
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                                                                                                                                                                                                 ORGANISM: Artificial Sequence FEATURE:
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                                                                                                                                                              OTHER INFORMATION: Synthetic Construct
                                                                                                                                                                                                                                                           TYPE: PRT
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; Sequence 47, Application US/10500796A;

Publication No. US20050163804A1;

; GENERAL INFORMATION:

; APPLICANT: The Government of the United States of America, as

; APPLICANT: represented by the Secretary of the Department of Health and

; APPLICANT: Human Services, Centers for Disease Control and Prevention
                                                                                                                                                                    RESULT 21
US-10-500-796A-47
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; Publication No. US20050163804A1
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PRIOR FILING DATE: 2001-04-04
PRIOR APPLICATION NUMBER: 09/701,536
PRIOR FILING DATE: 2000-11-29
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION NUMBER: PCT/US99/12298
PRIOR FILING DATE: 1999-06-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT APPLICATION NUMBER: US/10/500,796A
CURRENT FILING DATE: 2004-07-06
PRIOR APPLICATION NUMBER: PCT/US02/10764
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SOFTWARE: PatentIn version 3.3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION NUMBER: 60/087,908 PRIOR FILING DATE: 1998-06-04
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 685
TYPE: PRT
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PRIOR APPLICATION NUMBER: PCT/US02/10764
PRIOR FILING DATE: 2002-04-04
PRIOR APLICATION NUMBER: 09/826,115
PRIOR FILING DATE: 2001-04-04
PRIOR APPLICATION NUMBER: 09/701,536
PRIOR APPLICATION NUMBER: PCT/US99/12298
PRIOR APPLICATION NUMBER: PCT/US99/12298
PRIOR FILING DATE: 1999-06-03
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SEQ ID NO 47
LENGTH: 685
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                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
                                                                                                                                                                                                    APPLICANT: McDonell, Michael
APPLICANT: Ivy, John
APPLICANT: Harada, Kent
TITLE OF INVENTION: RECOMBINANT DIMERIC ENVELOPE VACCINE
TITLE OF INVENTION: AGAINST FLAVIVIRAL INFECTION
FILE REFERENCE: 24733-20005.01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Publication No. US20030175304A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 3, Application US/10247960
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TITLE OF INVENTION: NUCLEIC ACID VACCINES FOR PREVENTION OF FLAVIVIRUS
                   CURRENT APPLICATION NUMBER: US/10/247,960
CURRENT FILING DATE: 2002-12-17
PRIOR APPLICATION NUMBER: 09/376,463
PRIOR FILING DATE: 1999-08-18
PRIOR PPLICATION NUMBER: 08/904,227
PRIOR FILING DATE: 1997-07-31
NUMBER OF SEQ ID NOS: 37
                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Hawaii Biotechnology Group, Inc.
APPLICANT: Peters, Iain
APPLICANT: Coller, Beth-Ann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION NUMBER: US/10/500,796A CURRENT FILING DATE: 2004-07-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION NUMBER: 60/087,908 PRIOR FILING DATE: 1998-06-04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILE REFERENCE: 6395-64909-02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQ ID NOS: 61
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OTHER INFORMATION: Synthetic Construct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
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; Sequence 21, Application US/10719547
; Publication No. US20050010043A1
; GENERAL INFORMATION:
; APPLICANT: Whitehead, Stephen S.
; APPLICANT: Murphy, Brian R.
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US-10-719-547-17
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                                                                                                                                                                                                                                                                                                                                                                                      ; TYPE: PRT ; ORGANISM: Recombinant Dengue rDEN2/4d30 US-10-719-547-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; Sequence 17, Application US/10719547; Publication No. US20050010043A1
                                                                                                                  RESULT 24
US-10-719-547-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; APPLICANT: Whitehead, Stephen S.
; APPLICANT: Murphy, Brian R.
; APPLICANT: Hanley, Kathryn A.
; APPLICANT: Blaney, Joseph E. Jr.
; TITLE OF INVENTION: DEVELOPMENT OF MUTATIONS USEFUL FOR
; TITLE OF INVENTION: ATTENUATING DENGUE VIRUSES AND CHIMERIC DENGUE VIRUSES
                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; SEQ ID NO 17
; LENGTH: 3388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity 100.0%; Score 53; DB Hest Local Similarity 100.0%; Pred. No. 4.3; Matches 9; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQ ID NO 3
                                                                                                                                                                                                                                                                                          Query Match 100.0%; Score 53; DB Best Local Similarity 100.0%; Pred. No. 12; Matches 9; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION NUMBER: US/10/719,547
CURRENT FILING DATE: 2003-11-21
PRIOR APPLICATION NUMBER: PCT/US02/16308
PRIOR FILING DATE: 2002-05-22
PRIOR APPLICATION NUMBER: US 60/293049
PRIOR FILING DATE: 2001-05-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQ ID NOS: 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILE REFERENCE: NIH214.001C1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM: Dengue virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 1127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              237 IETWILRHP 245
                                                                                                                                                                                                       1 IETWILRHP 9
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                                                                                                                                                                                                                                                                                                                                          DB 5; Length 3388;
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APPLICANT: Putnak, Joseph Robert
APPLICANT: Putnak, Joseph Robert
APPLICANT: Chanock, Robert M.
APPLICANT: Chanock, Robert M.
APPLICANT: Mutphy, Brian R.
APPLICANT: Mitchead, Stephen S.
APPLICANT: Mitchead, Stephen S.
APPLICANT: Blaney, Joseph E., Jr.
ITLE OF INVENTION: CONSTRUCTION OF WEST NILE VIRUS AND
ITILE OF INVENTION: DENGUE VIRUS CHIMERAS FOR USE IN A LIVE VIRUS VACCINE TO
ITILE OF INVENTION: PREVENT DISEASE CAUSED BY WEST NILE VIRUS.
FILE REFERENCE: NIH225.001C1
CURRENT APPLICATION NUMBER: US/10/871,775
CURRENT APPLICATION NUMBER: DISTURBED BY WEST NILE VIRUS.
FRIOR APPLICATION NUMBER: PCT/US03/00594
PRIOR FILING DATE: 2002-01-09
PRIOR APPLICATION NUMBER: US 60/347,281
PRIOR APPLICATION NUMBER: US 60/347,281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; ORGANISM: Dengue 2 virus strain NGC US-10-719-547-21
; ORGANISM: Dengue 2 (Tonga/74) US-10-871-775-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 25
US-10-871-775-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              망
                                                                                   NUMBER OF SEQ ID NOS: 37
SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 31
LENGTH: 3391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 31, Application US/10871775 Publication No. US20050100886A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 100.0%; Score 53; DB 5; Length 3391; Best Local Similarity 100.0%; Pred. No. 12; Matches 9; Conservative 0; Mismatches 0; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: FastSEQ for Windows Version 4.0 SEQ ID NO 21 LENGTH: 3391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Hanley, Kathryn A.
APPLICANT: Blaney, Joseph E. Jr.
ITITLE OF INVENTION: BEVELOPMENT OF MUTATIONS USEFUL FOR
TITLE OF INVENTION: ATTENUATING DENGUE VIRUSES AND CHIMERIC DENGUE VIRUSES
FILE REFERENCE: NIH214.001C1
CURRENT APPLICATION NUMBER: US/10/719,547
CURRENT FILING DATE: 2003-11-21
PRIOR APPLICATION NUMBER: PCT/US02/16308
PRIOR FILING DATE: 2002-05-22
PRIOR FILING DATE: 2002-05-22
PRIOR FILING DATE: 2002-05-22
PRIOR FILING DATE: 2002-05-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQ ID NOS: 70
                                                         TYPE: PRT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
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0;

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Matches
                Query Match 100.0%; Score 53; DB 5; Length 3391; Best Local Similarity 100.0%; Pred. No. 12;
9; Conservative
0; Mismatches
0; Indels
0;
Gaps
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0;

Ş 1 IETWILRHP 9 ||||||||| 237 IETWILRHP 245

밁

Search completed: January 30, 2006, 09:13:53 Job time : 62 secs

# GenCore version 5.1.6 Copyright (c) 1993 - 2006 Compugen Ltd.

OM protein - protein search, using sw model

Run on: January 30, 2006, 09:09:58; Search time 45 Seconds (without alignments)
16.535 Million cell updates/sec

Title: Perfect score: US-10-608-147-29 53

Scoring table: BLOSUM62 1 IETWILRHP 9

572060 seqs, 82675679 residues Gapop 10.0 , Gapext 0.5

Searched:

Total number of hits satisfying chosen parameters: 572060

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 150 summaries

Database : Issued\_Patents\_AA:\*

1: /cgn2\_6/ptodata/1/iaa/5\_COMB.pep:\*

2: /cgn2\_6/ptodata/1/iaa/6\_COMB.pep:\*

3: /cgn2\_6/ptodata/1/iaa/PCTUS\_COMB.pep:\*

4: /cgn2\_6/ptodata/1/iaa/RE\_COMB.pep:\*

5: /cgn2\_6/ptodata/1/iaa/RE\_COMB.pep:\*

6: /cgn2\_6/ptodata/1/iaa/backfiles1.pep:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

Result	Score	Query Match	Query Score Match Length DB ID	DB B	ID	Description	ğ
1	53	100.0	635	2	US-09-341-833A-7	Sequence 7, Appli	7, Ap
2	53	100.0	677	2	US-09-341-833A-8	Sequence 8,	8, Appli
ω	53	100.0	1127	N	US-08-937-195-3	Sequence 3, Appli	3, Ap
4	53	100.0	1127	N	US-08-915-152-3	Sequence 3,	3, Ap
σ	53	100.0	1127	N	US-09-376-463-3	Sequence 3,	3, Appli
6	53	100.0	1127	4	PCT-US96-07627-3	Sequence 3, Appli	3, Ap
7	48	90.6	40	N	US-09-881-710-29	Sequence 29, Appl	29, A
8	47	88.7	40	2	US-09-881-710-28	Sequence 28, Appl	28, A
9	47	88.7	76	N	US-09-881-710-1	Sequence 1, Appli	1, Ap
10	47	88.7	661	2	US-09-452-638-51	Sequence 51, Appl	51, A
=	47	88.7	661	N	US-09-121-587A-2	Sequence 2, Appli	2. An

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-09-601-326-1	-09-019-	-09-113-750A-	US-09-489-039A-13019	-A166-757-60-	-09-328-352-5068	0-767-4	-09-107-433-490	30-613A-	-08-851-362D-44	-09-270-767-6	51-362D-	S-09-248-796A	416-603-2	S-09-121-587A-	5-09-45	US-U9-/11-164-3//	09-252-991A	09-252-991A-329	09-328-352-6463	-09-543-681A-58	-09-328-352-	-10-286	-10-126-279-6	-09-270-767-46313	US-09-270-767-33634 US-09-489-039A-12929	35-19/-072-09- 382-19/-0/2-09-	-09-489-039A	-09-252-991A-2292	-09-252-991A-26	-09-198-452A-735	-09-270-767-618	-09-328-352-5	-565-655-60	-08-925-339-2	-09-270-767-4	-09-248-796A-	-09-252-991A-3107	-09-489-039A-	-09-270-767-56647		19-252-991A	-09-252-991A-3287	-09-258-634-4	-09-252-991A-222	-09-248-796A-	-09-881-710-27	-09-107-532A-40	-09-134-000C-559	09-881-710-3	-09-341-833A -09-881-710-
equence 11,	equence 11.	equence 37.	Sequence 13019, A	equence 21/59,	equence 5068	equence 45315,	2	equence 13,	equence 44, App	equence 6081	27,	equence 264	equence 2, A	equence 1		Sequence 3//, App	equence	equence 32907,	e 6463,	equence 5826,	equence 61	equence	equence 6.	equence 46313.	e 12929	equence 3843	equence	equence 22922	26062	equence 735,	equence 618	equence 5320	ם מ	equence 21,	equence 4142	nce	equence 31075,	equence	equence 56647	Sequence 11032. A	nce 23866,	equence 32875,	equence 4, Appl	nce 22207,	equence 1562	equence 27, Ar	equence 4082,	equence 5598	30.	equence 9, A

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43	15	15	977	782	681	0	479	7	9	467	456	455	424	421	401	401	382	377	340	300	200	271	258	258	247	209	124	124	120	117	56	14	4	1627	1060	490	498	488	488	200	485	476	433	415	390	25 - 25 -	247	200	288	١.	2
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US-09-270-767-59608	-09-165-422-54	-08-592-646A-	S-10-104-047-255	-09-949-016-1157	-09-252-991A-215	-09-270-767-4506	-09-712-266-6	-09-446-504-64	-09-252-991A-	-08-140-104A-	S-09-268-364-21	-09-949-016-995	US-09-949-016-7950	-09-270-767-457	-09-051-982A-	-08-549-004A-5	-09-328-352-7736	-09-270-767-4525	-09-248-796A-21	2 5	109-614	-09-252-991A-260	-09-270-767-48284	-767-3306	-09-107-532A-3856	-09-252-991A-165	-09-270-767-5382	-09-270-767-386	US-09-313-999C-7409	-09-621-976-430	-09-513-999C-6	9-769-863-30	09-252-991A-216	09-252-991A-20	-352-8064	08-724-194-6	10-213-452A-	-09-255-154D-	US-08-695-412B-10	-08-378-313-2	-08-378-313-2	-08-378-313-3	-09-896-866B-	-09-896-866B-	-08-555-755C-4	09-543-681A-467	-09-389-039A-1157	-09-215-042-2	-08-995-280C	-A166-707-60-	-00-252-001-00-00
e 5960	4,	e 54, Ap	equence 2552, A	nce 11571,	equence 21553,	equence 4506	equence 64,	equence 64, Apr	equence 247	equence 2	equence 21,	e 9950,	equence 7950, A	e 45717,	nce 5,	equence 5, App	Ø.	nce	Sequence 21273, A	Sequence ozs, App	ace	e 26022,	e 48284,	e 33067	e 3856,	e 16591,	53821,	e 38604.	0 4 4 0 0 4 0 0 4 0 0 0 0 0 0 0 0 0 0 0	nce 4309,	e 6236,	e 30, App	nce 21617,	95	908 9	nce 6, App	e 10,	nce 10,	Sequence 10, Appl	equence 27,	nce 25,	e 34,	equence 1,	equence 7,	equence 4. Apr	Sequence 113/3, A	equence 2/40, #	e 2, App	equence 2, App	equence 282	20270

150	149	148	147	146	145	144	143	142	141	140	139	138	137	136	135	134	133	132	131	130	129	128	127	126
32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32
60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4
345	345	343	327	311	306	296	291	286	286	286	286	286	286	286	281	183	178	139	139	139	138	99	70	51
N	Ν	N	N	2	2	2	N	2	2	N	2	N	N	N	N	2	2	N	2	2	2	2	N	N
US-09-515-039-73	US-09-120-365-73	US-09-134-001C-5484	US-10-360-101-255	US-09-710-279-1260	US-09-487-558B-84	US-09-107-532A-4943	US-09-489-039A-8172	US-10-084-843-81	US-10-193-002-82	US-09-072-967-81	US-09-072-596-82	US-09-056-556-81	US-08-818-111-82	US-08-818-112-81	US-09-252-991A-30415	US-09-489-039A-10888	US-09-267-963D-33	US-09-205-658-13	US-09-543-681A-6577	US-08-857-076-13	US-09-763-620-13	US-09-492-709A-335	US-09-513-999C-6693	US-09-513-999C-7146
Sequence 73, Appl	Sequence 73, Appl	Sequence 5484, Ap	Sequence 255, App	Sequence 1260, Ap	Sequence 84, Appl	Sequence 4943, Ap	Sequence 8172, Ap	Sequence 81, Appl		Sequence 81, Appl			82,	Sequence 81, Appl	Sequence 30415, A	Sequence 10888, A	Sequence 33, Appl	Sequence 13, Appl	Sequence 6577, Ap	Sequence 13, Appl	Sequence 13, Appl	Sequence 335, App	Sequence 6693, Ap	Sequence 7146, Ap

### ALI CAMENTS

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NESULT 1
US-09-341-833A-7

US-09-341-833A-7

Sequence 7, Application US/09341833A

Patent No. 6383488

GENERAL INFORMATION:
APPLICANT: CENTRO DE INGENIERIA GENETICA Y BIOTECNOLOGIA

TITLE OF INVENTION: PRE-M/M PROTEIN EPITOPES OF THE DENGUE VIRUS, SYNTHETIC

TITLE OF INVENTION: PEPTIDES AND THEIR USES

FILE REFERENCE: Dengue preM/M SEGS 1-9 for 976-4(0003)

CURRENT FILING DATE: 1999-10-14

PRIOR APPLICATION NUMBER: CU 13/97

PRIOR APPLICATION NUMBER: CU 13/9
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Query Match 100.0%; Score 53; DB 2; Length 635; Best Local Similarity 100.0%; Pred. No. 0.35;

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; NUMBER OF SEQ ID NOS: 9
; SOFTWARE: Patentin Ver. 2.1
; SEQ ID NO 8
; LENGTH: 677
; TYPE: PRT
; ORGANISM: Artificial Sequence
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US-08-937-195-3
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US-09-341-833A-8
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                                                                                                                                                                                                                                                                                  Patent No. 6136561
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                                                                                                                                                                                                                                                                                                        Sequence 3, Application US/08937195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: CENTRO DE INGENIERIA GENETICA Y BIOTECNOLOGIA
TITLE OF INVENTION: PRE-H/M PROTEIN EPITOPES OF THE DENGUE VIRUS, SYNTHETIC
TITLE OF INVENTION: PEPTIDES AND THEIR USES
FILE REFERENCE: Dengue preM/M SEQs 1-9 for 976-4(0003)
CURRENT APPLICATION NUMBER: US/09/341,833A
CURRENT FILING DATE: 1999-10-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 8, Application US/09341833A Patent No. 6383488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION NUMBER: CU 13/97 PRIOR FILING DATE: 1997-01-15
                                                                                                                                                                                                                                                          GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OTHER INFORMATION: Description of Artificial Sequence: Fusion Protein OTHER INFORMATION: of Dengue virus preM/M and Neisseria meningitidis OTHER INFORMATION: P64k protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURE:
                                                                                                                                     APPLICANT: IVY, JOHN M.
APPLICANT: KAKANO, EILEEN
APPLICANT: CLEMENTS, DAVID
TITLE OF INVENTION: SUBUNIT VACCINE AGAINST DENGUE INFECTION
NUMBER OF SEQUENCES: 18
                                                                                                               CORRESPONDENCE ADDRESS:
COUNTRY: USA
                   STREET: 2000 PENNSYLVANIA AVENUE, NW, STE. 5500 CITY: WASHINGTON STATE: DC
                                                                                            ADDRESSEE: MORRISON & FOERSTER
                                                                                                                                                                                                                                                                                                                                                                                                                          116 IETWILRHP 124
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Matches

Conservative

Mismatches

Indels

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; Patent No. 6165477
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                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
COUNTRY: USA
ZIP: 20006-1812
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                           APPLICANT: IVY, JOHN M.
APPLICANT: KAKANO, EILEEN
APPLICANT: CLEMENTS, DAVID
TITLE OF INVENTION: SUBUNIT VACCINE AGAINST DENGUE INFECTION
NUMBER OF SEQUENCES: 52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REGISTRATION NUMBER: 29,959
REFERENCE/DOCKET NUMBER: 4733-0003.20
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US 08/488,807
FILING DATE: 07-JUN-1995
ATTORNEY/AGENT INFORMATION:
NAME: MURASHIGE, KATE H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CLASSIFICATION:
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ZIP: 20006-1812
COMPUTER READABLE FORM:
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                                                                                                                                                                         CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                         STREET: 2000 PENICITY: WASHINGTON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LENGTH: 1127 amino acids TYPE: amino acid
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TELEX: 90-4030
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US/08/937,195
                                                                                        STATE: DC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TOPOLOGY:
                                                                                                                             ADDRESSEE: MORRISON & FOERSTER
STREET: 2000 PENNSYLVANIA AVENUE, NW, STE. 5500
                                                                                                                                                                                                                                                                                                                                                                                                                                                      237 IETWILRHP 245
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APPLICANT: Hawaii Biotechnology Group, Inc.
APPLICANT: Peters, Iain
APPLICANT: Coller, Beth-Ann
APPLICANT: McDonell, Michael
APPLICANT: McDonell, Michael
APPLICANT: Harada, Kent
TITLE OF INVENTION: RECOMBINANT DIMERIC ENVELOPE VACCINE
TITLE OF INVENTION: AGAINST FLAVIVIRAL INFECTION
FILE REFERENCE: 24733-20005.20
CURRENT APPLICATION NUMBER: US/09/376,463
CURRENT FILING DATE: 2001-07-10
PRIOR APPLICATION NUMBER: US 08/904,227
PRIOR FILING DATE: 1997-07-31
NUMBER OF SEQ ID NOS: 37
OCTIMENT: FEATSO for Windows Various AP
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SOFTWARE: FastSEQ for Windows Version 4.0 SEQ ID NO 3 LENGTH: 1127
                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 3, Application US/09376463
Patent No. 6749857
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
LENGTH: 1127 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REGISTRATION NUMBER: 29,959
REFERNCE/DOCKET NUMBER: 4733-0003.21
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 887-1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US 08/500,469
FILING DATE: 10-JUL-1995
ATTORNEY/AGENT INFORMATION:
NAME: MURASHIGE, KATE H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: amino acid TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEPHONE: (202) -. TELEPHONE: (202) 887-0763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US/08/915,152 FILING DATE: 20-AUG-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          237 IETWILRHP 245
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Search completed: January 30, 2006, 09:17:41 Job time: 47 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; Sequence 3, Application; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 6
PCT-US96-07627-3
                                                                                                                                                                                                                                             PCT-US96-07627-3
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                                                                                                                                                     Query Match 100.0%; Score 53; DB 4; Best Local Similarity 100.0%; Pred. No. 0.64; Matches 9; Conservative 0; Mismatches
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ORGANISM: Dengue virus
                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: PCT/US INFORMATION FOR SEQ ID NO: 3:
                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES: 50
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30 (EPO)
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                          TOPOLOGY: linear MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                             SEQUENCE CHARACTERISTICS:
LENGTH: 1127 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: SUBUNIT VACCINE AGAINST FLAVIVIRUS INFECTION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                                                                                                                                                                                                       TYPE: amino acid
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                                                                     237 IETWILRHP 245
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## GenCore version 5.1.6 Copyright (c) 1993 - 2006 Compugen Ltd.

January 30, 2006, 08:59:57; Search time 134 Seconds (without alignments)
29.511 Million cell updates/sec

OM protein - protein search, using sw model

Title: Perfect score: US-10-608-147-29 53

1 IETWILRHP 9

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched:

Total number of hits satisfying chosen parameters: 2443163

2443163 seqs, 439378781 residues

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 150 summaries

Database : A Geneseq\_21:\*
1: geneseqp1990
2: geneseqp19000
3: geneseqp2001
4: geneseqp2001
5: geneseqp2002
6: geneseqp2003
7: geneseqp2003
9: geneseqp2003
9: geneseqp2003 geneseqp1980s:\*
geneseqp2000s:\*
geneseqp2001s:\*
geneseqp2002s:\*
geneseqp2003s:\*
geneseqp2003bs:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

geneseqp2005s:\*

## SUMMARIES

Result No.	Score	Query Match	Query Match Length DB	B	ID	Description	ä
-	1 53		9	ا و	100.0 9 9 ADW12595	Adw1 2595 M32-40/ DE	132-40/DE
2	53	100.0	21	9	ADW12594	Adw12594 M20-40/DE	120-40/DE
ω	53	100.0	32	9	ADW12593	Adw12593 M10-40/D	110-40/DE
4	53	100.0	39	9	ADW12576	Adw12576 M1-40/DEN	11-40/DEN
رب ر	53	100.0	40	Ŋ	AAE17432	Aae17432 D	Dengue (D
6	53	100.0	40	9	ADW12578	Adw12578 M1-40/YF.	41-40/YF.
7	53	100.0	48	S	AAE17433	Aae17433 (95-114)E	(95-114)E
80	53	100.0	167	ω	ADN37497	Adn37497 Dengue vi	Dengue vi

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Heterod	Dengue		2 DEN-1/I	Dengue	Dengue	Denque	Dengue	Dengue	Dengue	Adn37614 Dengue vi	Dengue	Dengue	Dengue				Dengue-	Dengue			Adn37501 Dengue vi				7					M1-40	Add93314 DEN2 (Ton					Dengue	Dengue	Dengue	Aav05522 Dengue vi	Apports of Pasmid p	_	Plasmic	Dengue		Dengue	Fusion	Dengue	Denque	8 Dengue	Dengue	0 Fusion	Adn37496 Dengue vi	

119 40 75.5 27 8 ADM11195 120 40 75.5 27 8 ADM11220 121 40 75.5 27 8 ADM11191 122 40 75.5 27 8 ADM11215	40 75.5 21 8 40 75.5 22 8 40 75.5 22 8 40 75.5 24 8 40 75.5 24 8 40 75.5 24 8	77.4 3387 4 77.4 3387 6 77.4 3387 6 77.4 3387 6 77.4 3387 6 77.4 3391 4 77.5 5 20 8 75.5 21 8 75.5 21 8 75.5 21 8	41 77.4 675 8 41 77.4 675 8 41 77.4 675 8 41 77.4 676 8 41 77.4 677 8 41 77.4 677 8	88.7 684 8 88.7 715 2 88.7 774 8 88.7 774 8 88.7 778 2 88.7 3390 4 88.7 3391 4 88.7 3391 4 88.7 3391 4 88.7 3392 4 88.7 3392 4 88.7 3392 4 88.7 3396 2
Adn11195 Peptide m Adn11220 Peptide m Adn11191 Peptide m Adn11215 Peptide m	Peptide Peptide Peptide Peptide Peptide Peptide			
PF 30-JUN-2003; 2003US-00608029. XX PR 30-JUN-2003; 2003US-00608029. XX	Dengue virus. US2004266987- 30-DEC-2004.		ALIGNE RESULT 1 ADM12595 Standard; peptide; 9 AA.	123 40 75.5 27 8 ADV11219 124 40 75.5 31 8 ADV112207 125 40 75.5 31 8 ADV112207 126 40 75.5 31 8 ADV112207 126 40 75.5 39 5 AARE17434 127 40 75.5 39 5 AARE17434 127 40 75.5 30 6 ADV11182 128 40 75.5 149 4 AAUGS2543 130 40 75.5 316 7 ADH87713 131 40 75.5 669 4 ABB69903 132 40 75.5 669 4 ABB69903 133 39 73.6 304 5 ABP27723 134 39 73.6 304 5 ABP27272 136 39 73.6 306 8 ADV82979 136 39 73.6 306 8 ADV82979 137 39 73.6 306 8 ADV82979 138 39 73.6 306 8 ADV82979 139 39 73.6 306 8 ADV82979 130 39 73.6 506 ABP57862 130 39 73.7 60 4 AAUG7387 141 38 71.7 60 4 AAUG7387 142 38 71.7 132 4 ABG16939 143 38 71.7 183 5 AARE15961 144 38 71.7 198 4 AAUG5420 146 38 71.7 198 6 ABM61939 148 38 71.7 230 8 ADV07829 150 38 71.7 230 8 ADV07829

## ALI GNMENTS

Adn11219 Peptide m
Adn11205 Peptide m
Adn11207 Peptide m
Adn11207 Peptide m
Aae17430 Dengue vi
Adn11182 Peptide i
Aae17440 Dengue vi
Adn11182 Peptide i
Aae135074 Enterococ
Adn8713 Enterococ
Adn869903 Drosophil
Adc94455 E. faeciu
Abp39465 Streptoco
Adv82979 Streptoco
Adv82979 Streptoco
Adv82979 Streptoco
Adv89572 Streptoco
Adv80825 Streptoco
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Aau67387 Propionib
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Abm63907 Propionib
Abm63908 Propionib
Abm63908 Propionib
Abm61939 Propionib

ation; virucide; cytostatic; vaccine; on; flavivirus infection; neoplasm; cancer;

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RESULT 2
ADW12594
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Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The present invention relates to an isolated and purified ApoptoM peptide. The invention is useful as a vaccine for the prevention and treatment of pathological conditions from non-specific febrile illnesses to severe hemorrhagic manifestations, encephalitic syndromes and these pathological conditions are linked to Flavivirus infection or cancers. The invention is also useful in gene therapy. The present sequence is a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New isolated and purified ApoptoM peptide comprises 9 amino acids, as a vaccine for preventing or treating pathological conditions from specific febrile illnesses to severe hemorrhagic manifestations or
                                                                                                                                                                                                                                                                                                                                                                                                                              Gene therapy; protein purification; virucide; cytostatic; vaccine; hemorrhage; bleeding; infection; flavivirus infection; neoplasm; cancer; DEN; dengue; mutant; mutein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Example 3; Fig 4; 30pp; English.
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                                                                                                                                                                                                                                                                                      US2004266987-A1.
                                                                                                                                                                                                                                                                                                                                                          Dengue virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 M20-40/DEN-2 mutant protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            24-MAR-2005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADW12594 standard; peptide; 21 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           M32-40/DEN (dengue)-2 mutant protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          encephalitic syndromes.
(INSP ) INST PASTEUR
                                                                   30-JUN-2003; 2003US-00608029
                                                                                                                                               30-JUN-2003; 2003US-00608029.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    y Match 100.0%; Score 53; DB 9;
Local Similarity 100.0%; Pred. No. 2e+06;
nes 9; Conservative 0; Mismatches (
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 9;
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RESULT 3
ADMI2 3
ADMI2 1D ADMI
XX ADMI 1 24-M
DT 24-M
XX Gene
KW Gene
KW DENJ
XX Deng
XX Deng
XX Deng
XX Deng
XX OSS
PN US2C
XX SO-C
PN 30-C
XX SO-C
PR 30-C
XX SO-C
X
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          to severe hemorrhagic manifestations, encephalitic syndromes and these pathological conditions are linked to Flavivirus infection or cancers. The invention is also useful in gene therapy. The present sequence is M20-40/DEN (dengue)-2 mutant protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The present invention relates to an isolated and purified ApoptoM peptide. The invention is useful as a vaccine for the prevention and treatment of pathological conditions from non-specific febrile illnesses
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New isolated and purified ApoptoM peptide comprises 9 amino acids, useful as a vaccine for preventing or treating pathological conditions from nonspecific febrile illnesses to severe hemorrhagic manifestations or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Example 3; Fig 4; 30pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  24-MAR-2005 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADW12593 standard; peptide; 32 AA.
                                                                                                                                                                                                                                                                                                                        US2004266987-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gene therapy; protein purification; virucide; cytostatic; vaccine; hemorrhage; bleeding; infection; flavivirus infection; neoplasm; cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                M10-40/DEN-2 mutant protein.
                                    (INSP ) INST PASTEUR
                                                                                                          30-JUN-2003; 2003US-00608029
                                                                                                                                                                            30-JUN-2003; 2003US-00608029
                                                                                                                                                                                                                                                  30-DEC-2004
                                                                                                                                                                                                                                                                                                                                                                                              Dengue virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                             dengue; mutant; mutein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Similarity 100.0%; 9; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 53; DB 9;
Pred. No. 0.016;
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RESULT 4
ADW12576
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Best Local Similarity 100.0%; Pred. No. 0.025;
Matches 9; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      treatment of pathological conditions from non-specific febrile illnesses to severe hemorrhagic manifestations, encephalitic syndromes and these pathological conditions are linked to Flavivirus infection or cancers. The invention is also useful in gene therapy. The present sequence is a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New isolated and purified ApoptoM peptide comprises 9 amino acids, as a vaccine for preventing or treating pathological conditions fro specific febrile illnesses to severe hemorrhagic manifestations or encephalitic syndromes.
                                                                                                                                                                                                                                                                                     Gene therapy; protein purification; virucide; cytostatic; vaccine; hemorrhage; bleeding; infection; flavivirus infection; neoplasm; cancer;
                                                                                                                                                                                                                                                                                                                                                 M1-40/DEN-2 protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 32 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     M10-40/DEN (dengue)-2 mutant protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The present invention relates to an isolated and purified ApoptoM peptide. The invention is useful as a vaccine for the prevention and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Example 3; Fig 4; 30pp; English.
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                                                                                                                                                                                   US2004266987-A1
                                                                                                                                                                                                                         Dengue virus.
                                                                                                                                                                                                                                                                                                                                                                                           24-MAR-2005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADW12576 standard; peptide;
                                                         30-JUN-2003; 2003US-00608029
                                                                                                    30-JUN-2003; 2003US-00608029.
                                                                                                                                            30-DEC-2004.
              (INSP ) INST PASTEUR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               24 IETWILRHP 32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 IETWILRHP 9
                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
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Despres P, Catteau A;

Courageot M,

Deubel V,

Catteau A;

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RESULT 5
AAE17432
ID AAE11
XX AAE1
AC AAE1
XX BPA
DT 29-A
DT 29-A
DT 18-A
XX Deng
XX Deng
XX Canc
XX Canc
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XX Deng
XX Deng
XX WO2(
XX Deng
XX III
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Best Local S
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New isolated and purified ApoptoM peptide comprises 9 amino acids, useful as a vaccine for preventing or treating pathological conditions from non-specific febrile illnesses to severe hemorrhagic manifestations or encephalitic syndromes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 39 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Example 3; SEQ ID NO 23; 30pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2005-047647/05
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Dengue virus; pRM glycoprotein; E glycoprotein; apoptosis; virucide; cancer; flavivirus infection; cytostatic; DEN-2 M ectodomain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               29-AUG-2003 (revised)
18-APR-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAE17432;
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                                                                                                                                     (INSP ) INST PASTEUR.
                                                                                                                                                                                                                                         16-JUN-2000; 2000US-0212129P
                                                                                                                                                                                                                                                                                                                          18-JUN-2001; 2001WO-IB001570
                                                                                                                                                                                                                                                                                                                                                                                                                         20-DEC-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               W0200196376-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Dengue virus; 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Dengue (DEN)-2 virus M ectodomain.
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Pred. No. 0.032;
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RESULT 6
ADW12578
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Best Local Similarity 100.0%; Pred. No. 0.033;
Matches 9; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (DEN) pRM and E glycoproteins, methods for screening molecules capable of inducing apoptosis and methods of inducing apoptosis in a cell. The invention particularly relates to DEN-1 M (a membrane protein anchored in envelope surrounding the nucleocapsid of the virus) ectodomain sequence, Den-1-C amino acid sequence and DEN-2 M ectodomain sequence. Sequences of the invention are useful for inducing apoptosis in a cell of a patient suffering from cancer or flavivirus infection. They are also useful for screening molecules which inhibit apoptosis. The present sequence is DEN-2 virus M ectodomain. (Updated on 29-AUG-2003 to standardise OS field)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Novel apoptosis inducing polypeptide fragments of Dengue virus-1 or protein, useful for inducing apoptosis in a cell of a human patient suffering from cancer or flavivirus infection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            M1-40/YF.17D (T34, I36, I37, H39) mutant protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 24-MAR-2005
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 9;
    Despres P, Catteau A;
                                                                                                                                                                                                                                                              30-JUN-2003;
                                                                                                                                                                                                                                                                                                                                                            30-DEC-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                                             US2004266987-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  YF; yellow fever; mutant; mutein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gene therapy; protein purification; virucide; cytostatic; vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADW12578 standard;
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                                                                                                                                                                              30-JUN-2003; 2003US-00608029
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Yellow fever virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               hemorrhage; bleeding; infection; flavivirus infection; neoplasm; cancer;
                                                                                         (INSP ) INST PASTEUR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        32 IETWILRHP 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 IETWILRHP 9
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                                                                                                                                                                                                                                                                   2003US-00608029.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      peptide;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
RESULT 7
AACIT 43
AC AACIT
AC 
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                                                                                                                                                                                                                                                                                                                                                                                                                                        Chimeric.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Unidentified.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Dengue virus;
    18-JUN-2001; 2001WO-IB001570
                                                                                         20-DEC-2001.
                                                                                                                                                                              WO200196376-A2.
                                                                                                                                                                                                                                                                                                           Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Dengue virus; 1.
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WPI; 2002-139706/18.

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Dengue virus; pRM glycoprotein; E glycoprotein; apoptosis; virucide; cancer; flavivirus infection; cytostatic; EGFP; DEN-2 protein; enhanced green fluorescent protein; fusion protein; M ectodomain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 to severe hemorrhagic manifestations, encephalitic syndromes and these pathological conditions are linked to Flavivirus infection or cancers. The invention is also useful in gene therapy. The present sequence is & M1-40/YF (yellow fever).17D (T34, T36, T37, H39) mutant protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present invention relates to an isolated and purified ApoptoM peptide. The invention is useful as a vaccine for the prevention and treatment of pathological conditions from non-specific febrile illnesses
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             as a vaccine for preventing or treating pathological conditions from non-specific febrile illnesses to severe hemorrhagic manifestations or encephalitic syndromes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Example 3; SEQ ID NO 25; 30pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New isolated and purified ApoptoM peptide comprises 9 amino acids, useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2005-047647/05
                                                                                                                                                                                                                                                                                                                 18-APR-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                  AAE17433 standard; protein; 48
                                                                                                                                                                                                                                                                          (95-114) EGFP (206-245) DEN-2 fusion protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          32 IETWILRHP 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 IETWILRHP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      l Similarity
9; Conserva
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                   13. .44
                                    Location/Qualifiers
/note= "Encoded by GTTATC"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%;
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Pred. No. 0.033;
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RESULT 8
ADN37497
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The invention relates to pro-apoptotic fragments of the Dengue virus CC (DEN) pRM and E glycoproteins, methods for screening molecules capable of CC inducing apoptosis and methods of inducing apoptosis in a cell. The convention particularly relates to DEN-1 M (a membrane protein anchored in CC envelope surrounding the nucleocapsid of the virus) ectodomain sequence, CC Den-1-C amino acid sequence and DEN-2 M ectodomain sequence. Sequences of CC the invention are useful for inducing apoptosis in a cell of a patient CC suffering from cancer or flavivirus infection. They are also useful for CC screening molecules which inhibit apoptosis. The present sequence is (95-CC 114) EGFP (206-245) DEN-2 fusion protein construct. This construct comprises CC 95-114 of the C-terminus of the C-protein of the DEN-1 virus strain BR/90 CC fused to the N-terminus of enhanced green fluorescent protein (EGFP) and CC DEN-2 virus strain Jamaica M ectodomain (DEN-2 polyprotein) fused to the
                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Novel apoptosis inducing polypeptide fragments of Dengue virus-1 or 2 M protein, useful for inducing apoptosis in a cell of a human patient suffering from cancer or flavivirus infection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 42; Fig 11; 45pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Despres P, Courageot M,
               Dengue virus
                                                                    virucide; Flavivirus; arboviruses group B; gene therapy; truncated prM;
                                                                                                       Dengue virus
                                                                                                                                             17-JUN-2004
                                                                                                                                                                                   ADN37497;
                                                                                                                                                                                                                     ADN37497 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 48 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DEN-2 virus strain Jamaica M ectodomain (DEN-2 polyprotein) fused to C-terminus of the EGFP sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (INSP ) INST PASTEUR
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                                                   capsid.
                                                                                                                                                                                                                                                                                                               40
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                                                                                                                                                                                                                                                                                                                                                                                      9;
                                                                                                                                                                                                                                                                                                                 I ETWI LRHP
                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                         C15/truncated prM antigen fusion protein - SEQ ID 122
                                                                                                                                             (first entry)
                                                                                                                                                                                                                    protein; 167
                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; Score 53; DB 5
100.0%; Pred. No. 0.04;
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                                                                                                                                                                                                                                                                                                                                                                                      0;
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                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                          DB 5;
                                                                                                                                                                                                                                                                                                                                                                                        0;
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RESULT 9
ADM37493
ID ADM37
XX
XX
AC ADM3
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DT 17-J
XX
DE Deng
XX
Viru
KW Viru
KW caps
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                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                          Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The invention relates to a novel recombinant or synthetic polypeptide comprising an amino acid sequence that has at least about 90% sequence identity to any of the 20 fully defined amino acid sequences given in typecification. The polypeptide of the invention demonstrates virucide activity and may be useful for inducing an immune response to Flaniviruses (arboviruses group B), including Dengue viruses, as well of the invention demonstrates.
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Dengue virus serotypes in a sample and for gene therapy. The current sequence is that of a Dengue virus C15/truncated prM antigen fusion protein of the invention which comprises the C-terminal 15 amino acids of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New recombinant or synthetic polypeptides and polynucleotides useful for diagnosing, preventing or treating diseases associated with flaviviruses,
                                                                                                                                                                                                                                                                                                                                                                                           Sequence 167 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Disclosure; SEQ ID NO 122; 409pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2004-043106/04.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Apt D, Punnonen J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      26-FEB-2002; 2002US-0360030P.
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               capsid; DEN-2.
                                                                                                                                    ADN37493;
                                                                                                                                                                  ADN37493 standard; protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               in detecting and/or diagnosing the presence of antibodies against the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 including dengue viruses.
                                 virucide; Flavivirus; arboviruses group B; gene therapy; truncated prM;
                                                                Dengue virus type 2 (DEN-2) C15/truncated prM antigen fusion protein.
                                                                                                     17-JUN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                           the C-terminal 15 amino acids.
                                                                                                                                                                                                                                                                                                                                                                                                                                          the capsid protein fused to a truncated form of the prM protein lacking
                                                                                                                                                                                                                                                        139 IETWILRHP 147
                                                                                                                                                                                                                                                                                       1 IETWILRHP 9
                                                                                                                                                                                                                                                                                                                         Similarity
9; Conserve
                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                        100.0%;
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                                                                                                                                                                       171
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; Pred. No. 0.16; 
0; Mismatches
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RESULT 10
ADN37496
ID ADN37
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                                                                                                                                                                                                                                                                                           Query Match 100.0%; Score 53; DB 8; Best Local Similarity 100.0%; Pred. No. 0.17; Matches 9; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New recombinant or synthetic polypeptides and polynucleotides useful for diagnosing, preventing or treating diseases associated with flaviviruses, including dengue viruses.
                                                                                                                                                                                                                                                                                                                                                                                              in detecting and/or diagnosing the presence of antibodies against the Dengue virus serotypes in a sample and for gene therapy. The current sequence is that of a Dengue virus type 2 (DEN-2) C15/truncated prM antigen fusion protein of the invention which comprises the C-terminal amino acids of the capsid protein fused to a truncated form of the prM protein lacking the C-terminal 15 amino acids.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The invention relates to a novel recombinant or synthetic polypeptide comprising an amino acid sequence that has at least about 90% sequence identity to any of the 20 fully defined amino acid sequences given in the specification. The polypeptide of the invention demonstrates virucide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      W02003102166-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Dengue virus type 2.
                                                                                                                                                                                                                                                                                                                                                              Sequence 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; SEQ ID NO 118; 409pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2004-043106/04.
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virucide; Flavivirus; arboviruses group B; gene therapy; truncated prM;
                               Dengue virus C15/truncated prM antigen fusion protein - SEQ ID 121.
                                                                   17-JUN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Flaviviruses (arboviruses group B), including Dengue viruses, as well as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     activity and may be useful for inducing an immune response to
                                                                                                                                        ADN37496 standard; protein; 171
                                                                                                                                                                                                                           143 IETWILRHP 151
                                                                                                                                                                                                                                                         1 IETWILRHP 9
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                                                                     (first entry)
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RESULT 11
AAW75410
ID AAW75
XX
AC AAW75
XX
AC AAW75
XX
DT 17-OC
DT 17-OC
DT 25-MA
DT 02-MA
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                                                                                                                                                                                                                        80
                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                           Query Match 100.0%;
Best Local Similarity 100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              The invention relates to a novel recombinant or synthetic polypeptide comprising an amino acid sequence that has at least about 90% sequence identity to any of the 20 fully defined amino acid sequences given in the specification. The polypeptide of the invention demonstrates virucide activity and may be useful for inducing an immune response to Flaviviruses (arboviruses group B), including Dengue viruses, as well as
                                                                                                                                                                                                                                                                                                                                                                                                in detecting and/or diagnosing the presence of antibodies against the Dengue virus serotypes in a sample and for gene therapy. The current sequence is that of a Dengue virus CI5/truncated prM antigen fusion protein of the invention which comprises the C-terminal 15 amino acids of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New recombinant or synthetic polypeptides and polynucleotides useful for diagnosing, preventing or treating diseases associated with flaviviruses,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      capsid.
                                                                                                                                                                                                                                                                                                                               Sequence 171 AA;
                                                                                                                                                                                                                                                                                                                                                              the capsid protein fused to a truncated form of the prM protein lacking the C-terminal 15 amino acids.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; SEQ ID NO 121; 409pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2004-043106/04.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 26-FEB-2003; 2003WO-US005918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Dengue virus.
 02-MAR-1999
                 17-OCT-2003
25-MAR-2003
                                                                     AAW75410;
                                                                                                      AAW75410 standard; peptide; 635 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        including dengue viruses.
                                                                                                                                                                                        143 IETWILRHP 151
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                                                                                                                                                                                                                                                             9; Conservative
 (first entry)
               (revised)
                                 (revised)
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                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                             Score 53; DB 8
Pred. No. 0.17;
                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                             DB 8;
                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                           Length 171;
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the

Indels

0; Gaps

 $\overset{\circ}{\otimes} \overset{\circ}{\times} \overset{\circ}{\circ} \overset{\circ$ 무 Ş Matches Query Match Best Local : Sequence 635 antibodies. The peptides, protein and antibodies are all useful for diagnosis and treatment of Flavivirus infection, e.g. in vaccines. (Updated on 25-MAR-2003 to correct PI field.) (Updated on 17-0CT-2003 to This protein represents a fusion protein comprising an M protein epitope from Dengue virus type 2 inserted into the P64K protein from Neisseria meningitidis. Synthetic peptides based on the Dengue virus epitope sequences (AAW75404-W75408) and fusion proteins can be used to raise Claim 7; Page 28-29; 64pp; Spanish. New peptide(s) and fusion proteins useful for diagnosis and treatment of flavivirus infection — contain cross-reactive epitopes from Dengue virus pre-M/M protein and can induce neutralising antibodies. Chinea Santiago G, W09831814-A1 Chimeric. Neisseria meningitidis Dengue virus; fusion protein; P64K; Neisseria meningitidis; epitope; antibody; diagnosis; Flavivirus; infection; vaccine. WPI; 1998-414111/35. Reyes Acosta O, 23-JUL-1998. Fusion protein PD30 contains Dengue virus epitope standardise OS field) (IPKM-) IPK INST MEDICINA TROPICAL KOURI PEDRO. 15-JAN-1997; 13-JAN-1998; (CIGB-) CIGB CENT ING GENETICA & BIOTECNOLOGIA. 74 IETWILRHP 82 1 IETWILRHP 9 Similarity
9; Conserv 100.0%; ilarity 100.0%; Conservative 0 ₹ S, Guzman Tirado G, Guillen Nieto GE, Pardo Lazo OL; o G, Perez Diaz AB, Pupo Antunez M, Rodriguez Roche R; Garay Perez HE, Padron Palomares G, Alvarez Vera M; Perez Insuita O, Pelegrino Martinez De La Coterri Pedro; 97CU-00000013. 98WO-CU000001. 0; Score 53; DB 2; Pred. No. 0.75; 0; Mismatches DB 2; Length 635; 0 Indels 0; Gaps 0;

ADN37628

ADN37628 standard; protein; 675 AA

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139 IETWILRHP 147

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                                   Matches
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                                                                                                                                                                                                                                                                                                                                                                                               New recombinant or synthetic polypeptides and polynucleotides useful for diagnosing, preventing or treating diseases associated with flaviviruses,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  11-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Dengue virus C15/prM/E part codon-optimised antigen fusion protein 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  17-JUN-2004
                                                                                                                               optimised antigen fusion protein of the invention which comprises 15 amino acids of the capsid (C) protein fused to the full-length partially codon-optimised prM protein and envelope (E) protein.
                                                                                                                                                                             in detecting and/or diagnosing the presence of antibodies against the Dengue virus serotypes in a sample and for gene therapy. The current sequence is that of the Dengue virus C15/prM/E partially human codon-
                                                                                                                                                                                                                                 activity and may be useful for inducing an immune response to Flaviviruses (arboviruses group B), including Dengue viruses, as well
                                                                                                                                                                                                                                                                 The invention relates to a novel recombinant or synthetic polypeptide comprising an amino acid sequence that has at least about 90% sequence identity to any of the 20 fully defined amino acid sequences given in v specification. The polypeptide of the invention demonstrates virucide
                                                                                                                                                                                                                                                                                                                                                 Example 28; SEQ ID NO 253; 409pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               W02003102166-A2
                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                 including dengue viruses.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (MAXY-) MAXYGEN INC
1 IETWILRHP 9
                                 Similarity
9; Conserv
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                                                                                                    675 AA;
                                 100.0%; Score 53; DB ilarity 100.0%; Pred. No. 0.8; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
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                                                                  DB 8;
                                     0;
                                                                  Length 675;
                                     Indels
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                                   Gaps
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RESULT 13 ADN37518 ID ADN37 80 Query Match 100.0%; Best Local Similarity 100.0%; Matches 9; Conservative ( Sequence 675 New recombinant or synthetic polypeptides and polynucleotides useful for diagnosing, preventing or treating diseases associated with flaviviruses, including dengue viruses. Dengue virus. 17-JUN-2004 ADN37518 standard; protein; 675 AA. sequence is that of the Dengue virus  ${\rm C15/prM/E}$  antigen fusion protein of the invention which comprises 15 amino acids of the capsid (C) protein activity and may be useful for inducing an immune response to The invention relates to a novel recombinant or synthetic polypeptide comprising an amino acid sequence that has at least about 90% sequence Claim 40; SEQ ID NO 143; 409pp; English. Apt D, 26-FEB-2002; 2002US-0360030P. 26-FEB-2003; 2003WO-US005918. envelope; capsid. virucide; Flavivirus; arboviruses group B; gene therapy; C15/prM/E; prM; Dengue virus C15/prM/E antigen fusion protein - SEQ ID 143. in detecting and/or diagnosing the presence of antibodies against the Dengue virus serotypes in a sample and for gene therapy. The current Flaviviruses (arboviruses group B), including Dengue viruses, as well as identity to any of the 20 fully defined amino acid sequences given in specification. The polypeptide of the invention demonstrates virucide 11-DEC-2003 WO2003102166-A2 (MAXY-) MAXYGEN INC. 1 IETWILRHP 9 Punnonen J, Ą (first entry) full-length prM protein and Brinkman AM; 0, Score 53; DB Pred. No. 0.8; Mismatches envelope 8; Length 675; 0; Indels (E) protein. 0 Gaps the 0,

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139 IETWILRHP 147

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1 IETWILRHP 9

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RESULT 14
ALN37612
IID ACN237
XX AUN377
XX AUN377
XX Dengu
XX Viruc
KW envel
XX envel
XX Engu
PN W0200
PN W0200
PN W0200
PN W1-DE
XX HAMP
PF 26-FE
XX HAMP
PN WM1-DE
XX HAMP
PN WM1-DE
XX The i
CC compri
CC actin
CC seque
CC the i
CC seque
CC flavi
CC seque
Best Local Similarity Matches 9; Conserv.
                                                         Query Match
                                                                                                                                                                                                                                                                                                     The invention relates to a novel recombinant or synthetic polypeptide comprising an amino acid sequence that has at least about 90% sequence identity to any of the 20 fully defined amino acid sequences given in the specification. The polypeptide of the invention demonstrates virucide activity and may be useful for inducing an immune response to Flaviviruses (arboviruses group B), including Dengue viruses, as well as in detecting and/or diagnosing the presence of antibodies against the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New recombinant or synthetic polypeptides and polynucleotides useful for diagnosing, preventing or treating diseases associated with flaviviruses,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           virucide; Flavivirus; arboviruses group B; gene therapy; C15/prM/E; prM;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17-JUN-2004 (first entry)
                                                                                                                                                                            Dengue virus serotypes in a sample and for gene therapy. The current sequence is that of the Dengue virus C15/prM/E antigen fusion protein of the invention which comprises 15 amino acids of the capsid (C) protein fused to the full-length prM protein and envelope (E) protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 40; SEQ ID NO 237; 409pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   26-FEB-2002; 2002US-0360030P
                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       including dengue viruses.
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                                                                                                                     675 AA;
   Conservative
                            100.0%; Score 53; DB 8; Length 675; 100.0%; Pred. No. 0.8;
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   0;
   Mismatches
   0
   indels
   0;
   Gaps
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139 I ETWI LRHP 147

Matches

9;

Conservative

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Mismatches

0:

Indels

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RESULT 15 ADN37626 Best Local Similarity Query Match Sequence 675 optimised antigen fusion protein of the invention which comprises 15 amino acids of the capsid (C) protein fused to the full-length partially codon-optimised prM protein and envelope (E) protein. Flaviviruses (arboviruses group B), including Dengue viruses, as well as in detecting and/or diagnosing the presence of antibodies against the Dengue virus serotypes in a sample and for gene therapy. The current sequence is that of the Dengue virus Cl5/prM/E partially human codon-The invention relates to a novel recombinant or synthetic polypeptide comprising an amino acid sequence that has at least about 90% sequence identity to any of the 20 fully defined amino acid sequences given in the specification. The polypeptide of the invention demonstrates virucide Claim diagnosing, preventing or including dengue viruses. New recombinant or synthetic polypeptides and polynucleotides useful for diagnosing, preventing or treating diseases associated with flaviviruses, N-PSDB; Apt D, 11-DEC-2003. W02003102166-A2 Dengue virus virucide; Flavivirus; arboviruses group B; gene therapy; C15/prM/E; human codon-optimised; prM; envelope; capsid. Dengue virus C15/prM/E part codon-optimised antigen fusion protein 1. 17-JUN-2004 ADN37626; ADN37626 standard; (MAXY-) 26-FEB-2002; 2002US-0360030P 26-FEB-2003; 2003WO-US005918. activity and may be useful for inducing an immune response to 2004-043106/04. 40; SEQ ID NO 251; 409pp; English. MAXYGEN Punnonen J, ADN37630 (first entry) Ŗ protein; 675 100.0%; Brinkman Score 53; Pred. No. Æ ⋧ 0.8; 8 Length 675

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RESULT 16
AAW75411
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Dengue virus; fusion protein; P64K; Neisseria meningitidis; epitope; antibody; diagnosis; Flavivirus; infection; vaccine.
                                                                                                                                                                                                                                                                                                                New peptide(s) and fusion proteins useful for diagnosis and treatment of flavivirus infection - contain cross-reactive epitopes from Dengue virus pre-M/M protein and can induce neutralising antibodies.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Chinea Santiago G, Perez Diaz AB, Pupo Antunez M, Rodriguez Roche R;
Reyes Acosta O, Garay Perez HE, Padron Palomares G, Alvarez Vera M;
Morier Diaz L, Perez Insuita O, Pelegrino Martinez De La Coterri Pedro;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Vazquez Ramudo S, Guzman Tirado G, Guillen Nieto GE, Chinea Santiago G, Perez Diaz AB, Pupo Antunez M, Royes Acosta O, Garay Perez HE, Padron Palomares G,
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antibodies. The peptides, protein and antibodies are all useful for diagnosis and treatment of Flavivirus infection, e.g. in vaccines. (Updated on 25-MAR-2003 to correct PI field.) (Updated on 17-OCT-2003 to
                                                                                        meningitidis. Synthetic peptides based on the Dengue virus epitope sequences (AAW75404-W75408) and fusion proteins can be used to rais
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15-JAN-1997;
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                                                                                                                                                                                                                                                        Claim 7; Page 30-32; 64pp; Spanish.
                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 1998-414111/35.
                                                                                                                                                         from Dengue virus type 4 inserted into the P64K protein from Neisseria
                                                                                                                                                                                          protein represents a fusion protein comprising an M protein epitope
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INST MEDICINA TROPICAL KOURI PEDRO.
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RESULT 17
ADN37613
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Matches 9; Conserv
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Flaviviruses (arboviruses group B), including Dengue viruses, as well in detecting and/or diagnosing the presence of antibodies against the Dengue virus serotypes in a sample and for gene therapy. The current sequence is that of the Dengue virus Cl5/prM/E antigen fusion protein
                                                                     The invention relates to a novel recombinant or synthetic polypeptide comprising an amino acid sequence that has at least about 90% sequence identity to any of the 20 fully defined amino acid sequences given in the specification. The polypeptide of the invention demonstrates virucide
                                                                                                                                                                                           New recombinant or synthetic polypeptides and polynucleotides useful for diagnosing, preventing or treating diseases associated with flaviviruses,
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                                                         activity and may be useful for inducing an immune response to
                                                                                                                                                                                                                                                                                                                                  26-FEB-2002; 2002US-0360030P
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  envelope; capsid.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                virucide; Flavivirus; arboviruses group B; gene therapy; C15/prM/E; prM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             17-JUN-2004
                                                                                                                                                 Example 13; SEQ ID NO 238; 409pp; English.
                                                                                                                                                                                                                                          WPI; 2004-043106/04.
                                                                                                                                                                                                                                                                       Αpt D,
                                                                                                                                                                                                                                                                                                     (MAXY-) MAXYGEN INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               116 IETWILRHP 124
                                                                                                                                                                                                                                                                      Punnonen J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          IETWILRHP 9
                                                                                                                                                                               dengue viruses.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ą,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C15/prM/E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%; Score 53; DB 2
100.0%; Pred. No. 0.81;
                                                                                                                                                                                                                                                                       Brinkman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            antigen fusion protein - SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Mismatches
                                                                                                                                                                                                                                                                       AM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        677;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADN37603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 677 AA;
           The invention relates to a novel recombinant or synthetic polypeptide comprising an amino acid sequence that has at least about 90% sequence identity to any of the 20 fully defined amino acid sequences given in the specification. The polypeptide of the invention demonstrates virucide activity and may be useful for inducing an immune response to Flaviviruses (arboviruses group B), including Dengue viruses, as well as in detecting and/or diagnosing the presence of antibodies against the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       fused
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   the invention which comprises 15 amino acids of the capsid (C)
                                                                                                                                                                                                                                                                                                                                                                 11-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                  virucide; Flavivirus; arboviruses group B; gene therapy; DEN-2;
Den-2C15/prM/E; prM; envelope; capsid.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Dengue virus type 2 Den-2C15/prM/E antigen fusion protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           17-JUN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADN37603;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADN37603 standard; protein;
                                                                                                                                                                      diagnosing, preventing or treating diseases associated with flaviviruses,
                                                                                                                                                                                                                                               Apt
                                                                                                                                                                                                                                                                                                                                    26-FEB-2003; 2003WO-US005918.
                                                                                                                                                                                                                                                                                                                                                                                             WO2003102166-A2
Dengue virus serotypes in a sample and for gene therapy. The current
                                                                                                                            Claim 38; SEQ ID NO 228; 409pp; English.
                                                                                                                                                          including dengue viruses.
                                                                                                                                                                                      New recombinant or synthetic polypeptides and polynucleotides useful for
                                                                                                                                                                                                                    WPI; 2004-043106/04.
                                                                                                                                                                                                                                                                             (MAXY-) MAXYGEN INC
                                                                                                                                                                                                                                                                                                        26-FEB-2002; 2002US-0360030P.
                                                                                                                                                                                                                                                                                                                                                                                                                     Dengue virus type 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local
                                                                                                                                                                                                                                               Ď,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         139 IETWILRHP 147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    to the full-length prM protein and envelope (E) protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                              Punnonen J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  I ETWI LRHP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%;
                                                                                                                                                                                                                                                 Brinkman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 53; DB 8, Pred. No. 0.81;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 677;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
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RESULT 19
ADN37517
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Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      sequence is that of the Dengue virus type 2 (DEN-2) Den-2C15/prM/E antigen fusion protein of the invention which comprises 15 amino acids of the capsid (C) protein fused to the full-length prM protein and envelope (E) protein.
          comprising an amino acid sequence that has at least about 90% sequence identity to any of the 20 fully defined amino acid sequences given in specification. The polypeptide of the invention demonstrates virucide activity and may be useful for inducing an immune response to
                                                                                                                           New recombinant or synthetic polypeptides and polynucleotides useful for diagnosing, preventing or treating diseases associated with flaviviruses, including dengue viruses.
                                                                                                                                                                                       WPI; 2004-043106/04.
                                                                                                                                                                                                                                                                                                                                                                                          Dengue virus
                                                                                                                                                                                                                                                                                                                                                                                                                                   virucide; Flavivirus; arboviruses group B; gene therapy; C15/prM/E; prM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Dengue virus C15/prM/E antigen fusion protein - SEQ ID 142.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               17-JUN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADN37517 standard; protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 681 AA;
                                                                  The invention relates to a novel recombinant or synthetic polypeptide
                                                                                                Claim 40; SEQ ID NO 142; 409pp; English.
                                                                                                                                                                                                                  Apt D,
                                                                                                                                                                                                                                                                           26-FEB-2002; 2002US-0360030P.
                                                                                                                                                                                                                                                                                                      26-FEB-2003; 2003WO-US005918.
                                                                                                                                                                                                                                                                                                                                  11-DEC-2003
                                                                                                                                                                                                                                                                                                                                                               WO2003102166-A2
                                                                                                                                                                                                                                                                                                                                                                                                                       envelope; capsid.
                                                                                                                                                                                                                                                (MAXY-) MAXYGEN INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             143 IETWILRHP 151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 IETWILRHP 9
                                                                                                                                                                                                                Punnonen J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                   Brinkman AM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      681
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 53; DB 8
Pred. No. 0.81;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 681;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
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Flaviviruses (arboviruses group B), including Dengue viruses, as well as

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            in detecting and/or diagnosing the presence of antibodies against the Dengue virus serotypes in a sample and for gene therapy. The current sequence is that of the Dengue virus C15/prM/E antigen fusion protein of the invention which comprises 15 amino acids of the capsid (C) protein fused to the full-length prM protein and envelope (E) protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                  Novel isolated nucleic acid useful as vaccine for preventing flavivirus infection, comprises transcriptional unit encoding signal sequence of one flavivirus and immunogenic flavivirus antigen of a second flavivirus.
                                                                                                                        WPI; 2003-058572/05.
N-PSDB; ABV77547.
                                                                                                                                                                                                                                                                          17-oct-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                        Plasmid pCBD2-14-6 containing dengue-2 virus prM and
                                                                                                                                                                                                                                                                                                                                                                                                                                                    07-FEB-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABP57874 standard; protein; 685
                                                                                                                                                                                                                                                                                                                                                                                               Flavivirus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABP57874;
 transcriptional unit encoding a signal sequence of a structural protein
              The invention relates to a novel nucleic acid comprising
                                       Example 20; Page 157-158; 174pp; English
                                                                                                                                                                                          (USSH ) US
                                                                                                                                                                                                                     04-APR-2001; 2001US-00826115.
                                                                                                                                                                                                                                                04-APR-2002; 2002WO-US010764.
                                                                                                                                                                                                                                                                                                    WO200281754-A1.
                                                                                                                                                                                                                                                                                                                                          Dengue-2 virus.
                                                                                                                                                                                                                                                                                                                                                         Unidentified.
                                                                                                                                                                                                                                                                                                                                                                                    pCBD2-14-6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 IETWILRHP 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%;
Similarity 100.0%;
9; Conservation
                                                                                                                                                                                          DEPT HEALTH & HUMAN SERVICES.
                                                                                                                                                                                                                                                                                                                                                                                  dengue virus; DEN-2.
                                                                                                                                                                                                                                                                                                                                                                                               immunogenic flavivirus antigen; virucide; vaccine; prM-E;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ą,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 53; DB 8, Pred. No. 0.81;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
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RESULT 21
ABP57876
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Best Local Similarity 100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               of a first flavivirus and an immunogenic flavivirus antigen of a second flavivirus, where the transcriptional unit directs the synthesis of the antigen. The polynucleotide of the invention has virucide activity, and acts as a vaccine. A composition of the invention is useful for immunising a subject against infection by a flavivirus. The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              polynucleotide is useful as a vaccine for preventing flavivirus infection. The sequence represents plasmid pCBD2-14-6, which contains dengue-2 virus (DEN-2) prM and E proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 685 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Flavivirus; immunogenic flavivirus antigen; virucide; vaccine; prM-E; pCB8D2-2J-2-9-1; Japanese encephalitis virus; dengue-2 virus; DEN-2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Plasmid pCB8D2-2J-2-9-1 protein product.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   07-FEB-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABP57876;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABP57876 standard; protein; 685 AA.
                                                   Novel isolated nucleic acid useful as vaccine for preventing flavivirus infection, comprises transcriptional unit encoding signal sequence of one flavivirus and immunogenic flavivirus antigen of a second flavivirus.
                                                                                                                                                                                                                                                                 Chang GJ;
                                                                                                                                                                                                                                                                                                                                                                                 04-APR-2001; 2001US-00826115.
                                                                                                                                                                                                                                                                                                                                                                                                                                          04-APR-2002; 2002WO-US010764.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             W0200281754-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Unidentified.
                                                                                                                                                                         N-PSDB; ABV77549
                                                                                                                                                                                                       WPI; 2003-058572/05
                                                                                                                                                                                                                                                                                                                       (USSH ) US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17-OCT-2002.
Example 20; Page 168-169; 174pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       147 IETWILRHP 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 IETWILRHP 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9; Conservative
                                                                                                                                                                                                                                                                                                                       DEPT HEALTH & HUMAN SERVICES.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 53; DB 6
Pred. No. 0.82;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
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RESULT 22
ABP57875
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The invention relates to a novel nucleic acid comprising a transcriptional unit encoding a signal sequence of a structural protein of a first flavivirus and an immunogenic flavivirus antigen of a second flavivirus, where the transcriptional unit directs the synthesis of the antigen. The polynucleotide of the invention has virucide activity, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               polynucleotide is useful as a vaccine for preventing flavivirus infection. The sequence represents plasmid pCB8D2-2J-2-9-1, which contains dengue-2 virus (DEN-2) prM, M and E, and Japanese encephalitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 685 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             acts as a vaccine. A composition of the invention is useful immunising a subject against infection by a flavivirus. The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    virus E proteins
                                                                                                                                                                                                                                17-OCT-2002
                                                                                                                                                                                                                                                                                                                                                     Flavivirus; immunogenic flavivirus antigen; virucide; vaccine;
                                                                                                                                                                                                                                                                                                                                                                                 Plasmid pCB9D2-IJ-4-3 protein product.
                                                                                                                                                                                                                                                                                                                                                                                                                07-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                            ABP57875;
Novel isolated nucleic acid useful as vaccine for preventing flavivirus infection, comprises transcriptional unit encoding signal sequence of one flavivirus and immunogenic flavivirus antigen of a second flavivirus.
                                                                                                                                                                                                  04-APR-2002; 2002WO-US010764.
                                                                                                                                                                                                                                                                                           Synthetic.
                                                                                                                                                                                                                                                                                                         Unidentified.
                                                                                                                                                                                                                                                                                                                                     pCB9D2-IJ-4-3; Japanese encephalitis virus; dengue-2 virus; DEN-2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ABP57875 standard; protein;
                                                               N-PSDB; ABV77548.
                                                                            WPI; 2003-058572/05
                                                                                                         Chang GJ;
                                                                                                                                      (USSH ) US
                                                                                                                                                                     04-APR-2001; 2001US-00826115.
                                                                                                                                                                                                                                                              WO200281754-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 147 IETWILRHP 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 IETWILRHP 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity 100.0%;
                                                                                                                                       DEPT HEALTH & HUMAN SERVICES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 53; DB 6, Pred. No. 0.82;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 685;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
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RESULT 23
AAW09409
THE FIRST STATE OF THE STATE OF
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             transcriptional unit encoding a signal sequence of a structural protein of a first flavivirus and an immunogenic flavivirus antigen of a second flavivirus, where the transcriptional unit directs the synthesis of the antigen. The polynucleotide of the invention has virucide activity, and acts as a vaccine. A composition of the invention is useful for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     immunising a subject against infection by a flavivirus. The polynucleotide is useful as a vaccine for preventing flavivirus infection. The sequence represents plasmid pCB9D2-IJ-4-3, which contains
                                                                                                                                                                                                                                                                                       Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAW09409 standard; protein; 1127 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             dengue-2 virus (DEN-2) prM, M and E, and Japanese encephalitis virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The invention relates to a novel nucleic acid comprising a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Example 20; Page 162-164; 174pp; English.
                                                                                                                Misc-difference
                                                                                                                                                                                                                                                                                                                                              Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Dengue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DEN-2; flavivirus; envelope protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Dengue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAW09409;
                        Region
                                                                                                                                                                                                                                Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             19-MAY-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        17-oct-2003
                                                                                                                                                                                                                                                                                                                                                                                                          Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       147 IETWILRHP 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 IETWILRHP 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  virus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ą
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                serotype 2 PR159/S1 polypeptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (revised)
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  serotype 2.
                                                /note= "amino acid residue 598 (Val) is Ile in wild-type PR159"
                                                                                                                588
                                                                                                                                                                                                                                281.
                                                                                                                                                                                                                                                                                                                  115. .205
/label= Pre-membrane
                           776. .1127
                                                                                                                                                                                                  /label=
                                                                                                                                                                                                                                                            /label= Membrane
                                                                                                                                                                                                                                                                                                                                                                               /label= Capsid
                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                           /label=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%;
                                                                                                                                                                                                                                   .775
                                                                                                                                                                                                                                                                                             . 280
                                                                                                                                                                       el= Envelope
.395
                                                                                                                                           Domain-B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 53; DB 6;
Pred. No. 0.82;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            immunisation; vaccine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 6; Length 685;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   [1]
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RESULT 24
AAY05522
ID AAY05
XX
AC AAY05
XX
DT 17-OC
DT 05-JU
XX
DE Dengu
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity
Matches 9; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sub:unit vaccine against flavivirus infection - contg. recombinant envelope protein in secretable form, used for immunising against flavivirus infection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         be used in novel subunit vaccines against viral infection, to raise antibodies useful for passive immunisation, and for diagnosis of infection. (Updated on 17-OCT-2003 to standardise OS field)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A polypeptide (AAW09409) comprises the capsid, pre-membrane, envelope and NS1 proteins of dengue virus serotype 2 (DEN-2) variant PR159/S1. A conservative mutation in the envelope protein may be involved in the attenuation of this small-plaque, temp. sensitive variant. Portions of the envelope protein, esp. domain B, can be expressed in eukaryotic hosts (see also AAW09410 and AAW09427-28) transfected with vectors incorporating DEN-2 S1 cDNA (see also AAT47666). These polypeptides can
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            24-MAY-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    28-NOV-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     N-PSDB; AAT47666.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 1997-020938/02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (HAWA-) HAWAII BIOTECHNOLOGY GROUP INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       24-MAY-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         W09637221-A1
                                Dengue virus serotype 2 PR159/S1 viral capsid, pprM, E, NS1.
                                                                                                     17-0CT-2003
05-JUL-1999
                                                                                                                                                                                                                  AAY05522;
                                                                                                                                                                                                                                                                                    AAY05522 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 1127 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Example 1; Fig 3A-D; 121pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MC Avi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10-JUL-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              237 IETWILRHP 245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 IETWILRHP 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Nakano E,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                     (first entry)
                                                                                                                                          (revised)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              95US-00448734.
95US-00488807.
95US-00500469.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               96W0-US007627
                                                                                                                                                                                                                                                                                protein; 1127 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; Score 53; DB 2; 100.0%; Pred. No. 1.4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Clements
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 1127;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
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Flavivirus; envelope protein; vaccine; Dengue virus; serotype 2 infection; diagnosis.

20

1 IETWILRHP 9

Best Local Similarity 100.0%; Matches 9; Conservative 0

0;

0;

Indels

0; Gaps

0;

Pred. No. 1.4; Mismatches

Protein Protein Protein 115. 206. /label= PreMembrane /label= Capsid /label= Membrane Location/Qualifiers .280 . 205

W09906068-A2

Protein

280.

/label= Envelope

11-FEB-1999.

27-JUL-1998; 98WO-US015447

31-JUL-1997; 97US-00904227

(HAWA-) HAWAII BIOTECHNOLOGY GROUP INC.

IVY JM, Peters ID, Coller BG, Mcdonnell M, Harada KE;

WPI; 1999-153454/13.

N-PSDB; AAX25114.

virus infections. Recombinant dimeric flaviviral envelope vaccine - comprising a dimeric 80%E protein, useful for protecting against flavivirus, especially dengue

Example 1; Fig 3A-D; 60pp; English.

This sequence is composed of the capsid, prM, envelope (E) and NS1 proteins of serotype 2 dengue virus DBN-2 strain PR159/S1. A vaccine for protecting against flavivirus infection comprises a dimeric 80% E protein that has been secreted as a recombinant protein from a eukaryotic cell. 80% E indicates a C-terminally truncated flavivirus E protein. The particular dengue viruses such as DEN-2, where 90% E comprises amino acids 1-395 of DEN-2 E. The products can also be used for diagnosis infection. (Updated on 17-OCT-2003 to standardise OS field) domain through the homodimeric association of 2 leucine zipper helices each fused to the C-terminus of an 80% E molecule; or (3) via the dimeric truncated E is formed: (1) by directly linking 2 tandem copies 80% E via a flexible tether; (2) via the formation of a leucine zipper terminus of an 80% E molecule. Dimeric truncated DEN-2 E proteins are efficiently secreted by recombinant cells, are easier to purify than formation of a non-covalently associated four-helix bundle domain formed upon association of two helix-turn-helix moieties attached to the Cintracellular proteins, and generate a high titer neutralising antibody response. The method is generally applicable to flaviviruses, in of.

Sequence 1127 AA;

Query Match

100.0%; Score 53; BB 2; Length 1127

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ADL98086
ADL98086
XX
AC ADL9
XX
AC ADL9
AC ADL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         31-JUL-1997;
18-AUG-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADL98086 standard; protein; 1127 AA
                                                                                                                                                                                                                                                                                                                                                                                              Vaccine useful for protection against dengue virus infection, comprises a dimeric 80% envelope, which has been secreted as a recombinantly produced
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    capsid protein; NS1 protein; Dengue haemorrhagic fever; DHF;
Dengue shock syndrome; DSS; flavivirus; vaccine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Dengue virus; DEN-2; Envelope protein; 80% E; membrane protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Dengue virus, DEN-2, capsid/membrane/envelope/NS1 proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               18-NOV-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADL98086;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           18-SEP-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US2003175304-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Dengue virus type 2; strain PR159/S1
                             -395. Also included are a method for protecting a subject against a
Flavivirus, an immunogenic polypeptide comprising a dimeric 80% E, an
                                                                                                        which represents the N-terminal 80% portion of the protein from residue 1
                                                                                                                                     as a recombinantly produced protein from Drosophila Schneider cells and
                                                                                                                                                                       The invention relates to a vaccine for protection against Flavivirus infection comprising a dimeric 80% envelope (E), which has been secreted
                                                                                                                                                                                                                                                                                      Example 1; Fig 3; 31pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  N-PSDB; ADL98085.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Peters ID,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (MCDO/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20-SEP-2002; 2002US-00247960
immunogenic composition for protection against Flavivirus infection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (HARA/) HARADA K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (OLL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PETE/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2003-898503/82.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        237 IETWILRHP 245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ) PETERS I D.
) COLLER B G.
) MCDONELL M.
) IVY J M.
                                                                                                                                                                                                                                                                                                                                                             from Drosophila Schneider cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Coller BG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99US-00376463.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mcdonell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Z
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ιvy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ğ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Harada
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ζ.
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RESULT 26
ADQ28716
Matches
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         incorporating a helix-turn-helix peptide, to encourage dimerisation. The vaccine is useful for protection against dengue virus infection (e.g. Dengue haemorrhagic fever, DHF, and Dengue shock syndrome, DSS). The present sequence is encoded by the partial genomic sequence of the DEN-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            proteins of serotypes comprising DEN-1, DEN-2, DEN-3 or DEN-4. The Flavivirus is a dengue virus. The 80% E protein is produced as a dimer by incorporating 2 different kinds of leucine zipper peptides or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              comprising the immunogenic polypeptide and a carrier, an immunodiagnostic for detecting Flavivirus comprising the immunogenic polypeptide, a vector host recombinant DNA expression system, a DNA sequence encoding the
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Dengue virus viral capsid, prM, E and NS1 gene polyprotein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADQ28716 standard; protein; 1127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 1127 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Flavivirus in a test subject. The dimeric 80% E products are envelope
                   N-PSDB; ADQ28715
                                                                                                                                                               31-JUL-1997;
                                                                                                                                                                                                     18-AUG-1999;
                                                                                                                                                                                                                                              15-JUN-2004.
                                                                                                                                                                                                                                                                                         US6749857-B1.
                                                                                                                                                                                                                                                                                                                             Dengue virus
                                                                                                                                                                                                                                                                                                                                                                     viral capsid; prM gene; E gene; NS1 gene.
                                                                                                                                                                                                                                                                                                                                                                                                              virucide; vaccine; Flavivirus; dimeric 80%E; Drosophila Schneider cell;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              26-AUG-2004 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADQ28716;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             strain PR159/S1 virus, and represents the capsid, membrane, envelope and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               immunogenic polypeptide and an immunodiagnostic kit for detecting
                                      WPI; 2004-438725/41.
                                                                            Peters ID, Coller BG,
                                                                                                                       (HAWA-) HAWAII BIOTECHNOLOGY GROUP INC.
                                                                                                                                                                                                                                                                                                                                                                                          lmmunogenic composition; multivalent immunodiagnostic; dengue virus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 237 IETWILRHP 245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 IETWILRHP 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                               97US-00904227
                                                                                                                                                                                                     99US-00376463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%;
                                                                              Mcdonell M, Ivy JM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 53; DB Pred. No. 1.4;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      7; Length 1127;
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                                                                              Harada K;
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문 δÃ

New vaccines for preventing or diagnosing infections caused by dengue virus comprises a therapeutic amount of a dimeric 80%E protein secreted from Drosophila Schneider cells. neutralising antibody response to a Flavivirus in a murine host. The vaccine comprises a therapeutic amount of a dimeric 90%, the dimeric Example 1; SEQ ID NO 3; 47pp; English. The invention describes a vaccine that generates a protective,

immunodiagnostic for the detection of Flavivirus, comprising at least 2 of the above immunogenic polypeptides of at least 2 flaviviral serotypes; and an immunodiagnostic kit for the detection of Flavivirus in a test The composition is useful for preventing or diagnosing infections caused by dengue virus. This is the amino acid sequence of the polyprotein encoded by Dengue virus gene viral capsid, prM, E and NS1 genes for Dengue virus strain PR159/S1 used as the source of DEN-2 genes for the subject, comprising the above immunogenic or multivalent immunodiagnostic polypeptide, a suitable support phase coated with dimeric 80%E, and portion of the protein from residues 1-395. Also described are: an 90%E having been secreted as a recombinantly produced protein from Drosophila Schneider cells, and where 80%E represents the N-terminal 80% immunogenic composition that generates a protective, neutralising antibody response to a Flavivirus in a murine host, comprising the above immunogenic polypeptide and a physiological carrier; a multivalent immunogenic polypeptide comprising the dimeric 80%E cited above; an abeled antibodies immunoreactive to antibodies from the test subject.

Sequence 1127 ξ

Matches Query Match Local Similarity 100.0%; Score 53; DB 9; Local Similarity 100.0%; Pred. No. 1.4; pes 9; Conservative n. w.-0 Length 1127; Indels 0; Gaps 0;

밁 δÃ 237 IETWILRHP 245 1 IETWILRHP 9

RESULT 27 AAE35314 standard; protein; 3388 AA.

AAE35314

ID AAE36

XX

AC AAE3

XX

DT 28-h

XX

DE Denx

XX

XX

Benx

XX

OS Denx

XX

XX

VX

OS Denx

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OS Denx

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OS Denx

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OS Denx

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OS Denx

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OS Denx

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OS Denx

XX

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OS Denx

XX OS Denx

XX OS Denx

XX OS Denx

XX OS Denx Dengue virus type 2 strain rDEN2/4delta30 protein. 28-MAY-2003 (first entry) AAE35314;

Attenuation; growth; vaccine; infection; Dengue virus type 4.

Dengue virus

W0200295075-A1

28-NOV-2002.

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RESULT 28
AAR13166
ID AAR13
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                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                            The present invention relates to novel mutated flaviviruses comprising a phenotype in which the viral genome is modified by introduction of a mutation, singly or in combination, taken from mutations from recombinant virus bearing Vero adaptation mutations, purative Vero cell adaptation mutations of dengue type 4 virus (DEN4) or mutations known to attenuate dengue type 4 virus. The methods and compositions of the invention are useful for fine tuning the attenuation and growth characteristics of dengue virus vaccines for the prevention and/or treatment of dengue virus infection. The present sequence is Dengue virus type 4 strain rDENZ/4delta30 protein
                                                                                                                                   25-MAR-2003
21-NOV-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New mutated flavivirus, useful for fine tuning the attenuation and growth characteristics of dengue virus vaccines for the prevention and/or treatment of dengue virus infection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2003-120809/11.
                                          Dengue virus.
                                                                        dengue virus; detection; consensus sequence; Flavivirus; PCR.
                                                                                                   Proteins encoded by entire Dengue 2 virus genome.
                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 3388 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Disclosure; Page 133-134; 246pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Whitehead SS, Murphy BR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           22-MAY-2001; 2001US-0293049P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      22-MAY-2002; 2002WO-US016308
 Peptide
                                                                                                                                                                              AAR13166;
                                                                                                                                                                                                           AAR13166 standard; protein; 3391 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (USSH ) US DEPT HEALTH & HUMAN SERVICES. (BLAN/) BLANEY J E.
                                                                                                                                                                                                                                                                                    237 IETWILRHP 245
                                                                                                                                                                                                                                                                                                               1 IETWILRHP 9
                                                                                                                                                                                                                                                                                                                                           Similarity
9; Conserva
                                                                                                                                                                                                                                                                                                                                           100.0%; ilarity 100.0%; Conservative 0
                                                                                                                                  (revised)
(first entry)
Location/Qualifiers
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Pred. No. 5;
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Modified-site
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/label= E
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183
                                                            /label= N-glycosylated 2704
                                                                                                                                                                /label= N-glycosylated 2485
                                                                                                                                                                                           2457
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                                                                                       2665
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                      /label= N-glycosylated
                                                                                                                                         2493. .3391
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                                               /label= N-glycosylated
                                                                                                 /label= N-glycosylated
                                                                                                                          /label= NS5
                                                                                                                                                    /label= N-glycosylated
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                                                                                                                                                                                                                                                                                                                    label= NS3
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RESULT 29
AAW06591
ID AAW06
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Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             can be identified using the probe pair of the invention. A species-specific sequence can be amplified using the claimed oligonucleotides as primers in a PCR reaction (see AAQ12788 and AAQ12789). Other viruses
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              which can be identified include Japanese encephalitis virus and yellow fever virus. All the dengue 2 virus proteins are encoded from an uninterrupted genomic sequence. (Updated on 25-MAR-2003 to correct PR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Detection and identification of Flaviviridae in biological sample - by amplifying consensus sequence then hybridisation opt. followed by typing, e.g. sequencing amplified prod.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI;
                                            Dengue 2 virus; polyprotein; capsid; prM; M; E; NS1; NS2A; NS2B; NS3; NS4A; NS4B; NS5; PDK-53; quadravelnt virus; immunity; serotype; chimeric DEN-2/1 virus; chimeric DEN-2/4 virus; chimeric DEN-2/4 virus; dengue fever; fatal dengue haemorrhagic fever; dengue shock syndrome;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Vincent D;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               09-NOV-1989;
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Dengue virus type 2 (strain 16681).
                                                                                                                                                         27-AUG-2003
12-SEP-1997
                                                                                                                                                                                                                                     AAW06591 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 3391 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Disclosure; Fig 3; 24pp; French.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (INSP ) INST PASTEUR.
                                                                                                                         Polyprotein of attenuated DEN-2 virus, strain 16681, PDK-53.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The dengue 2 virus is an example of a member of the Flaviviridae which
                                                                                                                                                                                                                                                                                                                                                                        y Match 100.0%; Score 53;
Local Similarity 100.0%; Pred. No.
nes 9; Conservative 0; Mismatch
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1991-225002/31.
DB; AAQ12787.
                                                                                                                                                                                                                                                                                                                237 IETWILRHP 245
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                                                                                                                                                         (first entry)
                                                                                                                                                                         (revised)
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                                                                                                                                                                                                                                    protein;
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Key
Protein
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                                                                                                   07-JUN-1995;
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                                    Bhamarapravati N,
                                                                                                                                                    19-DEC-1996
                                                                                                                                                                          W09640933-A1
WPI; 1997-052330/05.
                                                            (USSH ) US DEPT HEALTH & HUMAN SERVICES (UYMA-) UNIV MAHIDOL AT SALAYA.
                       Trent DW;
                                                                                                                                                                                                                        1128. .1345

/label= NS2A

1346. .1475

/label= NS2B

1476. .2093

/label= NS3

2094. .2242

/label= NS4A

2243. .2491

/label= NS4S
                                                                                                   95US-00483292
                                                                                                                           96WO-US009209
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281. .775
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206. .280
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /label= Capsid_protein
                                                                                                                                                                                                                                                                                                                                                                                                                             /label= NS1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /note= "N-linked
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /label= E
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          115. .205
                                                                                                                                                                                                   note= "Encoded
                                                                                                                                                                                                                                                                                                                                                                            /note= "N-linked
                                                                                                                                                                                                                                                                                                                                                                                                  note= "N-linked glycosylation site,
                                                                                                                                                                                                                                                                                                                                                                                                                                                   'note= "N-linked glycosylation site, encoded
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             'label= prM
                                    Butrapet S,
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                                                                                                                                                                                                 by KKA"
                                    Chang J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           glycosylation
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                                                                                                                                                                                                                                                                                                                                                                         glycosylation site,
                                     Gubler DJ,
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                                     Halstead
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PDK-53, a clone of infectious attenuated Dengue 2 virus strain 16681 also chimeric DEN-2/1, DEN-2/3 and DEN-1/4 viruses, used as a quadravalent vaccine for protecting against Dengue virus infection.

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11-SEP-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This sequence represents the polyprotein from attenuated Dengue 2 virus, strain 16681. The attenuated virus is designated PINK-53. The polyprotein comprises the capsid, prM, M, E, NS1, NS2B, NS3, NS4A, NS4B, and NS5 proteins. A clone of this wildtype viral sequence, PDK-53, may be used in the production of a quadravalent vaccine which provides immunity against all four serotypes of dengue virus. The vaccine also comprises a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DEN-4, which can lead to derigue fever or fatal dengue haemorrhagic fever/dengue shock syndrome (DHF/DSS). Host cells are used to produce the recombinant protein products of the DNA constructs which are used in the vaccines. (Updated on 27-AUG-2003 to correct OS field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              chimeric DEN-2/1 virus, a chimeric DEN-2/3 virus, and/or a chimeric DEN-2/4 virus. The new quadravalent vaccines are used to protect against infection by all four serotypes of dengue virus, DEN-1, DEN-2, DEN-3 and
                                                                                                                                           Кeу
                                                                                                                                                                         Dengue virus
                                                                                                                                                                                                                                         NS4A; NS4B; NS5; PDK-53; quadravalent vaccine; immunity; serotype; chimeric DEN-2/1 virus; chimeric DEN-2/3 virus; chimeric DEN-2/4 virus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 3391 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 27; Page 122-136; 261pp; English.
                            Protein
                                                              Modified-site
                                                                                                                                                                                                                                                                                                        Polyprotein of DEN-2 virus, strain 16681.
                                                                                                                                                                                                                                                                                                                                                                                         AAW06590;
                                                                                                                                                                                                                                                                                                                                                                                                                       AAW06590 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 IETWILRHP 9
                                                                                                                                                                                                                         fever; fatal dengue haemorrhagic fever; dengue shock syndrome;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IETWILRHP 245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                           type 2 (strain 16681).
                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                      (revised)
                                                                                                                                                                                                                                                                       polyprotein; capsid; prM; M; E; NS1; NS2A; NS2B; NS3;
             /note= "N-linked glycosylation site"
206. .280
/label= M
                                                              183
                                                                           /label= prM
                                                                                                         /label= Capsid_protein
                                                                                                                                           Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                     protein;
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PDK-53, a clone of infectious attenuated Dengue 2 virus strain 16681 also chimeric DEN-2/1, DEN-2/3 and DEN-1/4 viruses, used as a quadravalent vaccine for protecting against Dengue virus infection.
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                                                                                    This sequence represents the polyprotein from Dengue 2 virus, strain 16681. The polyprotein comprises the capsid, prM, M, E, NS1, NS2A, NS2B, NS3, NS4A, NS4B and NS5 proteins. A clone of this wildtype viral
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          06-JUN-1996;
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vaccine also comprises a chimeric DEN-2/1 virus, a chimeric DEN-2/3 virus, and/or a chimeric DEN-2/4 virus. The new quadravalent vaccines are
                                           sequence, PDK-53, may be used in the production of a quadravalent vaccine which provides immunity against all four serotypes of dengue virus. The
                                                                                                                                                                                                                                                                                                                                                                                                 Bhamarapravati N,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 07-JUN-1995;
                                                                                                                                                                             Claim 23; Page 107-121; 261pp; English.
                                                                                                                                                                                                                                                                                                                 N-PSDB; AAT49303.
                                                                                                                                                                                                                                                                                                                                      WPI; 1997-052330/05
                                                                                                                                                                                                                                                                                                                                                                                                                                             (USSH ) US DEPT HEALTH & HUMAN SERVICES. (UYMA-) UNIV MAHIDOL AT SALAYA.
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347
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1346.11475
114bel= NS2B
1476..2093
14bel= NS3
2094..249
/1abel= NS4A
2432..391
14abel= NS5
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982
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          'note= "Encoded by KKA"
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                                                                                                                                                                                                                                                                                                                                                                                                      Gubler DJ,
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used to protect against infection by all four serotypes of dengue virus,

8 8 8 8 8 8 8 8 문 Query Match 100.0%; Score 53; DB 2; Length 3391; Best Local Similarity 100.0%; Pred. No. 5; Matches 9; Conservative 0; Mismatches 0; Indels 0 DEN-1, DEN-2, DEN-3 and DEN-4, which can lead to dengue fever or fatal dengue haemorrhagic fever/dengue shock syndrome (DHF/DSS). Host cells are used to produce the recombinant protein products of the DNA constructs which are used in the vaccines. (Updated on 27-AUG-2003 to correct OS field.) Sequence 3391 AA; 0; Indels 0; Gaps 0;

Search completed: January 30, 2006, 09:13:02 Job time: 137 secs